II. INVENTORY

.1 Introduction

The inventory stage includes the identification, analysis and mapping of all on-site and off-site factors which may affect the development potential of the Sun Valley ski area. The inventory data includes: the land status, climatic, biophysical, and physiographic characteristics of the study area, as well as an analysis of the existing ski area. The study area identified for mountain planning purposes encompasses about 8,180 acres in and around the Bald Mountain portion of the Sun Valley ski area and 1,030 acres in and around the Dollar Mountain ski area. Through an understanding of the site's existing conditions and natural process, environmentally sensitive areas can largely be avoided and natural development opportunities maximized.

As a prelude to discussing the mountain's characteristics, it is appropriate to familiarize the reader with the basic requirements of ski area development. Ski area development is generally considered to be a non-consumptive resource use of the land. The development of ski lifts and ski trails requires the use of approximately 50 percent of the area in small, heavily developed zones. Ski lift right-of-ways are characteristically 40 to 50 feet in width, while ski trails vary between 100 and 200 feet wide. Subsequent to rough grading by practices selected for each site, the trails require fine grooming and in some cases, seeding to establish a grass cover. This grass cover prevents erosion, helps to minimize hazards and damage to the skiers' and snowboarders' equipment during low snowpack periods and possible damage to the area's snow grooming fleet. Ski lifts are generally aerial cable systems used to transport skiers up the mountain, with steel towers and concrete foundations every 150 to 250 feet.

Ski base area development generally includes a paved access road, parking lots, buildings for accommodation, a daylodge and a maintenance center. Additionally, appropriate power and water supply and sewage disposal facilities are required to support any base area improvements. The physical site characteristics discussed in this section all interact to aid the planning team when assessing the capability of the natural systems to support resort development.

.2 Physiography

The quality and feasibility of a winter sports site is highly dependent upon the topographic characteristics of each individual site. Physiographic features which substantially affect ski development particular include: aspect (exposure), slope gradients, fall-line patterns and elevation.

Bald Mountain Landform

The Bald Mountain study area is dominated by the Bald Mountain peak, with an elevation of 9,151 feet. From the summit of Bald Mountain, four main ridges emanate to the north (Guyer Ridge), the south (Mayday Ridge) and to the east (Frenchman's and Christmas/Exhibition Ridges). Seattle Ridge extends to the east. These ridges are separated by drainages which form "V"-shaped valleys. There are five main drainages in the study area, Clear Springs on the southern edge of the study area, Cold Springs and Frenchman's to the east and Warm Springs to the west. The slopes from the top of the ridges to the bottom of the valley are generally steep with uniform gradients.

Wood River Valley and the Town of Ketchum, Idaho

Exposure

The exposures in the study area range through all 360°. Within the existing ski area, exposures are more in the range of directly north to east and south. The terrain west of the existing ski area has exposures primarily in the westerly and northerly directions, while the zone south of the ski area has exposures in the southerly quadrants, ranging from east through south to south-easterly. Much of the northern and north-eastern exposure is covered in coniferous trees, while the other exposures are covered in grasses.

Fall Line Patterns

As mentioned previously, many of the slopes have uniform gradients from top to bottom, interspersed by parallel streambeds. The fall lines on most slopes are parallel in local areas, with diversions or conversions occurring only where these slopes meet and change direction (i.e. ridges and valleys). Major fall line concentration areas are identified on the Bald Mountain Fall Line Analysis Map (Figure 10).

Elevation

The potential vertical drop available for lift serviced skiing plays an important role in site suitability, since it determines the length of potential ski trails and also the vertical transport feet that can be supplied to the skiing and snowboarding public. Essentially, the more vertical the better, as many skiers/snowboarders use vertical rise as a basic yardstick of ski area desirability.

Warm Springs Base – Elevation 5,882 feet

Elevations within the Bald Mountain study area range from the summit, at 9,147 feet, to the River Run base, at 5,154 feet, and the Warm Springs base, at 5,882 feet. Seattle Ridge, to the south west of Bald Mountain, rises to a peak of 8,703 feet. The potential skiable vertical is approximately 3,393 feet.

Dollar Mountain Landform

Dollar Mountain is located to the east of Ketchum and virtually stands alone on the edge of the Wood River Valley. Dollar Mountain is separated from the rest of the mountains to the east by a wide flat valley which rises only 200 feet above the Wood River Valley. Dollar Mountain has several local peaks and generally forms a J-shaped ridge surrounding a bowl which drains to the southwest.

Dollar Mountain

Exposure

Dollar Mountain has exposures in all directions but the current skiable areas face northerly and easterly.

Fall Line Patterns

The fall lines on Dollar Mountain emanate in all directions and change direction frequently. The only concentrations of fall lines occur on the peaks and in the basin to the south of the peak of Dollar Mountain, as shown on Figure 11.

Elevation

The peak of Dollar Mountain is at approximately 6,640 feet and other local peaks range from 6,470 feet to 6,643 feet. The existing base at Dollar is at 5,935 feet and the Elkhorn base is at 6,019 feet. The maximum skiable vertical is approximately 645 feet. Figure 3 illustrates the Aspect Analysis for Bald Mountain and Figure 3a illustrates the Aspect Analysis for Dollar Mountain. Figure 4 illustrates the Permit Boundary and Land Ownership at Sun Valley.

.3 Climate

The Sun Valley Ski Area is located in a semi-arid climate zone influenced both by the mountains and the prairie. The ski area receives 21-22 inches of precipitation in an average year, which results in 150-200 inches of snow per year. During the winter, the weather is generally clear, with cold temperatures at night and relatively warm temperatures (for a ski area) during the daytime. Due to the relatively low snowfall, the uncertainty of the snowfall, and the solar radiation on south facing slopes, snowmaking is necessary to ensure an extended and consistent length of ski season. Plate II.1 illustrates the average maximum and minimum daily temperatures for Sun Valley.

SUN VALLEY
AVERAGE MAXIMUM & MINIMUM TEMPERATURES

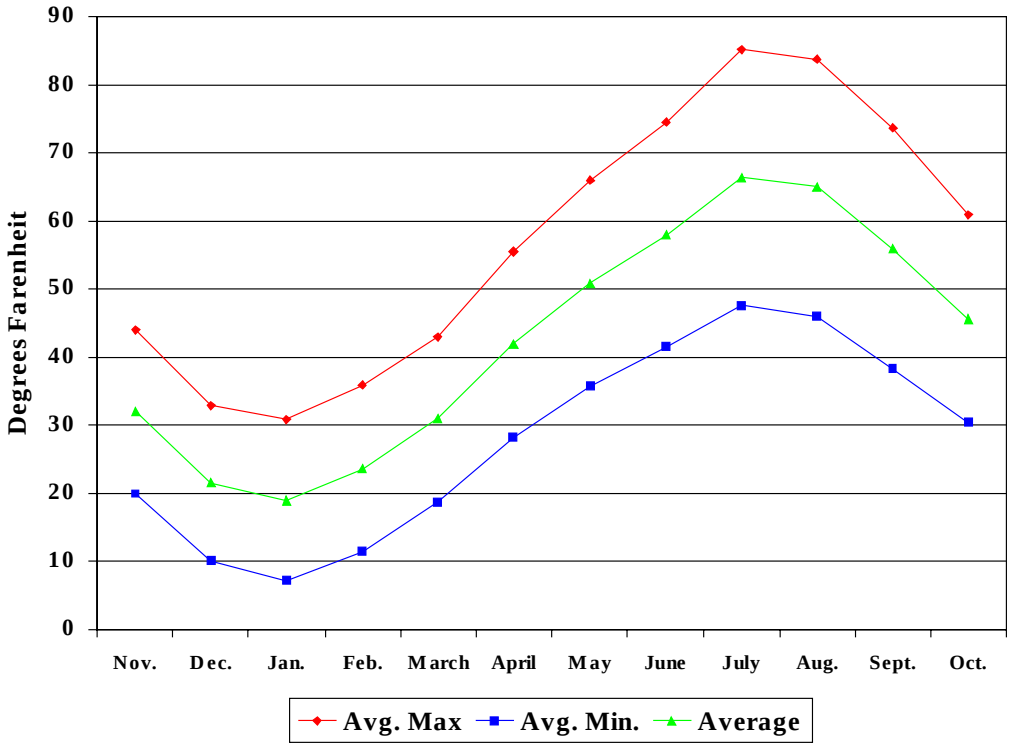


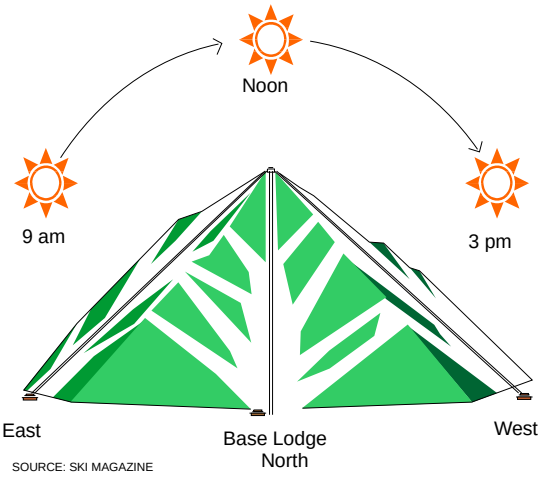
PLATE II.1

Microclimate

While regional climate patterns are primarily concerned with evaluating total resort feasibility, a thorough understanding of microclimate provides an essential input for the site-specific design process. Microclimate is basically the climate near the ground where surface influences such as lakes, swamps, mountain slopes and valleys, and vegetation effect dramatic influence upon the local climate as experienced by humans on the earth's surface.

Most skiers are highly aware of the sun's influence on snow quality. While skiers prefer to ski in the sun, they will not do so if the snow is sticky or mushy due to intense solar radiation. As illustrated in Plate II.2, skiers will follow the sun throughout the day, skiing eastern exposures in the morning, southern exposures at noon and western exposures in the afternoon. As a general rule, south slopes are the warmest, eastern and western slopes the next warmest and northern slopes the coolest. Snowpack retention is a critical concern for any skiing operation and for this reason, slopes and ski trails should naturally be located where the snowpack remains for the longest period.

SKI POINTER



SOURCE: SKI MAGAZINE

IN SPRING, STAY AHEAD OF THE SUN

By John Fry
Contributing Editor

The trick to enjoyable spring skiing is to catch the snow as it becomes granular corn before it gets slushy. A good strategy is to keep one eye on the slopes and the other on the sun.

In the morning, after a frosty night, look for east-facing and southeast-facing slopes that catch the early sun. They will be the first to soften up.

As the sun climbs higher and moves into the southern sky, move with it. Ski the north-facing slopes early before they become sloppy.

Finally, move to the west-facing slopes in the afternoon to search for good corn snow.

Smart scrutiny of the weather and terrain will improve your day of skiing.

PLATE II.2

Solar Analysis

The site's angular relationship with the sun is a critical design parameter, since it determines the time of day and for how long the sun's rays will bathe the parking lots, daylodge, ski slopes and base areas. Within the Sun Valley study area, the solar radiation is particularly intense, resulting in frequent times of little or no snowpack on south facing terrain. For this reason, we have prepared a detailed solar analysis to determine the areas of topographic shading at 9:00 a.m., 12:00 noon and 3:00 p.m., on three selected days of the ski season. Figures 5a through 5f illustrate the sun/shadow throughout the study area on these selected days. Figure 5g illustrates the hot and cold zones for Bald Mountain and Figure 5h illustrates the Dollar Mountain hot and cold zones.

Bald Mountain

The shading at 9:00 a.m. on Bald Mountain is shown in Figure 5a. On December 21st at 9:00 a.m., the entire Warm Springs side of the mountain is in the shade, as are most of the slopes serviced by the Seattle Ridge lift. Also shaded on this date, are the southern sides of the River Run and the Frenchman's drainages. The entire River Run trail is also shaded at this time. By January 21st, the shadows have receded only slightly, covering almost the same extent of terrain in the same locations. By February 21st, the shading still covers all of the Warm Springs Base. Most of the River Run and the Frenchman's drainage are now in the sunshine, as is most of Seattle Ridge.

At noon on December 21st, portions of the ski area remain shaded, as illustrated on Figure 5b. Most of the Warm Springs side of the mountain, a portion of River Run and Exhibition and part of the Frenchman's drainage remain shaded at noon on December 21st. By January 21st, the shadows have diminished slightly but by February 21st at noon, almost the entire area is bathed in sunlight except for a few tiny pockets.

At 3:00 p.m. on December 21st, almost all of the ski area north of the Christmas lift is shaded and portions of the trails serviced by the Mayday and Seattle Ridge chairlifts are in the shade. Again, the shadows only recede slightly by January 21st. By February 21st at 3:00 p.m., the only shaded areas are on the steep slopes south of the River Run and on Exhibition, pockets on the Warm Springs side of the mountain and pockets to the east of the Seattle Ridge chairlift.

The solar analysis indicates that the Warm Springs side of the mountain is the coldest part of the ski area. In contrast, the River Run base is bathed in sunlight most of the skiing day. The hot and cold zones on Bald Mountain are summarized in Figure 5g.

Dollar Mountain

Figures 5d, 5e and 5f illustrate the sun/shadow on Dollar Mountain. Figure 5d illustrates the shading on Dollar Mountain at 9:00 a.m. on selected days of the season. On December 21st at 9:00 a.m., the entire northwest side of the mountain is in the shade, as are the four small valleys to the south of Dollar Mountain. The Dollar daylodge is sunlit, as is the Quarter Dollar lift and the entire Elkhorn side. Small parts of Ketchum are in the shade but all of Sun Valley is sunlit. By January 21st at 9:00 a.m., the shading has only receded slightly, but by February 21st, the shadows have receded significantly with only part of the northwest side of Dollar still shaded and small pockets in the southeast slopes of Dollar's southern valleys.

On December 21st at noon, only six tiny pockets of shading are evident on the north side of Dollar Mountain. On both January 21st and February 21st, the entire area is bathed in sunlight.

Dollar Mountain in Shadow

On December 21st at 3:00 p.m., the only shading evident is on the north side of Dollar and on the south side of Elkhorn. The Dollar daylodge, the Half Dollar lift and most of the Elkhorn ski trails are in the sunlight on this date. By January 21st, shading has been reduced by about half, and by February 21st, all shadows have disappeared. The hot and cold zones on Dollar Mountain are summarized on Figure 5h.

.4 Avalanche

The Sun Valley staff has provided the planning team with an avalanche study of the existing Bald Mountain ski area. Figure 6 shows the approximate locations of avalanche prone areas on Bald Mountain. The avalanche prone areas tend to be steep, south or southeast facing slopes where the stability of the snow can be affected by both solar radiation and the steep incline of the slope. Other areas of avalanche hazards identified include the north facing slope to the west of the Challenger lift, the steep bowl to the north of the Roundhouse and the gully to the east of the Seattle Ridge chairlift. All of these avalanche prone areas are regularly monitored and controlled by Sun Valley staff. Figure 6 does not denote the exact size, shape, run-out distances, severity or frequency of avalanche events of the past or potential in the future if left uncontrolled.

Avalanches within ski areas are generally divided into two categories:

1. Slopes which, under normal circumstances, present an avalanche hazard for part of the winter season and with the proper preparation and control, can be used for ski terrain. These trails are steep, advanced and expert terrain which may be dangerous early in the winter but can usually be stabilized and opened for regular skiing.

2. The second category indicates the minority of avalanche prone slopes within the ski area which, due to their steepness and wind transport patterns, are capable of generating recurring avalanche problems throughout the entire winter season. These types of avalanches require continuous monitoring and control measures.

The main incline of avalanche starting zones is approximately 40 degrees (84 percent). While large avalanches are not common on slopes below 30 degrees (58 percent), given the right conditions, minor activity may be initiated by skiers on slopes as slight as 22 degrees (40 percent). Under certain conditions, therefore, we may expect a low, intermittent hazard on advanced and expert ski terrain.

.5 Existing Mountain Facilities

Ski Lifts - Bald Mountain

The Sun Valley Ski Area currently operates a total of 14 ski lifts on Bald Mountain, including 2 double chairlifts, 4 triple chairlifts, 7 detachable quadruple chairlifts and a beginner handle tow. The layout of the existing lift system is graphically illustrated in plan view in Figure 7a, the Bald Mountain Existing Mountain Facilities Map.

Figure 7b illustrates the existing mountain facilities on Bald Mountain (viewed from the River Run side) in a three-dimensional view and Figure 7c illustrates the existing facilities on Bald Mountain in a three-dimensional view, as viewed from the Warm Springs side.

The technical specifications for the existing lifts are listed in Table II.1. Data for these lifts, including top and bottom terminal elevations and horizontal length was supplied by Sun Valley management and checked against the new topographic mapping prepared in January of 2003. The Sun Valley Company also provided the rated hourly capacity, rope speed, drive output, hours of operation and number of carriers. Ecosign has calculated the vertical rise (based on the top and bottom terminal elevations), the estimated length, average slope, vertical transport feet per hour and an estimate of the lift's loading efficiency. Bald Mountain currently has a lift serviced vertical of 3,388 feet, stretching from the top of Mayday to the River Run base. The 14 lifts have a total rated capacity of 23,800 passengers per hour and generate a total of 34.5 million vertical transport feet (VTF) per hour.

Challenger and Lookout Express Top Terminals

TABLE II.1
BALD MOUNTAIN LIFT INVENTORY

Lift Number	1	2	3	4	5	6	7
Lift Name	River Run	Exhibition	Christmas	Cold Springs	Lookout Express	Sunnyside	Greyhawk
Year Constructed	1993	1977	1988	1970	1993	1978	1988
Lift Type	D4C	3C	D4C	2C	D4C	3C	D4C
Top Elevation ft.	6,368	7,687	9,038	7,676	9,034	8,200	7,374
Bottom Elevation ft.	5,754	6,365	7,675	6,616	6,360	6,360	5,886
Total Vertical ft.	614	1,322	1,363	1,060	2,674	1,840	1,488
Horizontal Distance ft.	2,906	3,436	3,946	2,740	7,157	4,794	2,875
Slope Distance ft.	2,970	3,682	4,175	2,938	7,640	5,135	3,237
Average Slope %	21%	38%	35%	39%	37%	38%	52%
Rated Capacity pph	2,400	1,500	2,400	1,200	1,800	1,500	2,400
V.T.F./Hr.(000)	1,474	1,983	3,271	1,272	4,813	2,760	3,571
Rope Speed fpm	900	465	950	465	950	465	900
Trip Time Min.	3.3	7.9	4.4	6.3	8.0	11.0	3.6
Drive Output (hp)	345	465	550	200	750	400	567

Lift Number	8	9	10	11	12	13	14	
Lift Name	French-man's	Flying Squirrel	Challenger	Lookout	Seattle Ridge	Kinder-spielplatz	Mayday	
Year Constructed	1994	1972	1988	1972	1992		1976	
Lift Type	D4C	2C	D4C	3C	D4C	HT	3C	TOTAL
Top Elevation ft.	8,089	8,174	9,038	9,147	8,683	5,760	9,138	
Bottom Elevation ft.	6,587	6,563	5,886	9,018	7,380	5,750	7,525	
Total Vertical ft.	1,502	1,611	3,152	129	1,303	10	1,613	19,681
Horizontal Distance ft	3,783	3,716	8,451	2,007	2,836	150	3,247	
Slope Distance ft.	4,070	4,050	9,020	2,011	3,121	150	3,626	55,825
Average Slope %	40%	43%	37%	6%	46%	7%	50%	38%
Rated Capacity pph	1,800	1,200	1,500	1,800	2,400	300	1,600	23,800
V.T.F./Hr.(000)	2,704	1,933	4,728	232	3,127	3	2,581	34,452
Rope Speed fpm	900	500	1,000	450	900	200	465	
Trip Time Min.	4.5	8.1	9.0	4.5	3.5	0.8	7.8	
Drive Output (hp)	528	260	750	75	528		400	

Ski Lifts - Dollar Mountain

Dollar Mountain, owned and operated by the Sun Valley Company, consists of four chairlifts and moving carpets lifts, servicing terrain in the beginner to high intermediate skill classes. The three double chairlifts, one triple chairlift and moving carpet are shown graphically in Figure 8a. Figure 8b illustrates the existing Dollar Mountain ski facilities in three-dimensional perspective view. The lifts at Dollar Mountain can transport 5,200 passengers per hour and produce 1.94 million VTF per hour. The total skiable vertical at Dollar Mountain is 645 feet, from the top of the Dollar chairlift to the bottom of the Half Dollar lift. The technical specifications for the existing lifts on Dollar Mountain are listed in Table II.2.

TABLE II.2
DOLLAR MOUNTAIN LIFT INVENTORY

Lift Number	D1	D2	D3	D4	D5	
Lift Name	Half Dollar	Dollar	Quarter	Elkhorn	Accelerator	
Year Constructed	1978	1977	1969	1972		
Lift Type	2C	2C	2C	3C	MC	TOTAL
Top Elevation ft.	6,125	6,580	6,120	6,573	5,951	
Bottom Elevation ft.	5,935	5,940	5,952	6,019	5,938	
Total Vertical ft.	190	640	168	554	13	1,565
Horizontal Distance	1,154	2,685	1,243	2,289	100	
Slope Distance ft.	1,170	2,760	1,254	2,355	101	7,640
Average Slope %	16%	24%	14%	24%	13%	21%
Rated Capacity pph	1,000	1,200	1,200	1,400	400	5,200
V.T.F./Hr.(000)	190	768	202	776	5	1,940
Rope Speed fpm	350	425	300	450	120	
Trip Time Min.	3.3	6.5	4.2	5.2	0.8	
Drive Output (hp)	50	150	50	125		

Dollar Mountain Lifts

Ski Trail Inventory

In order to provide an accurate account of Sun Valley's ski trail system, the trails have been classified in concert with the International Ski Trail Standards (Table II.3), as well as the seven skier skill classification levels exhibited in Table II.4. Ski trails are classified via an evaluation of the following parameters: slope width, average gradient and the steepest 100-foot vertical pitch. Since the average slope gradient of a ski trail is generally much lower than the steepest 100-foot vertical pitch, the ski trails are usually classified to ensure that the steepest 100-foot vertical pitch falls within five percent of the acceptable terrain gradients listed in Table II.4. Furthermore, a gentle novice ski trail cannot suddenly turn into an advanced ski trail for obvious reasons.

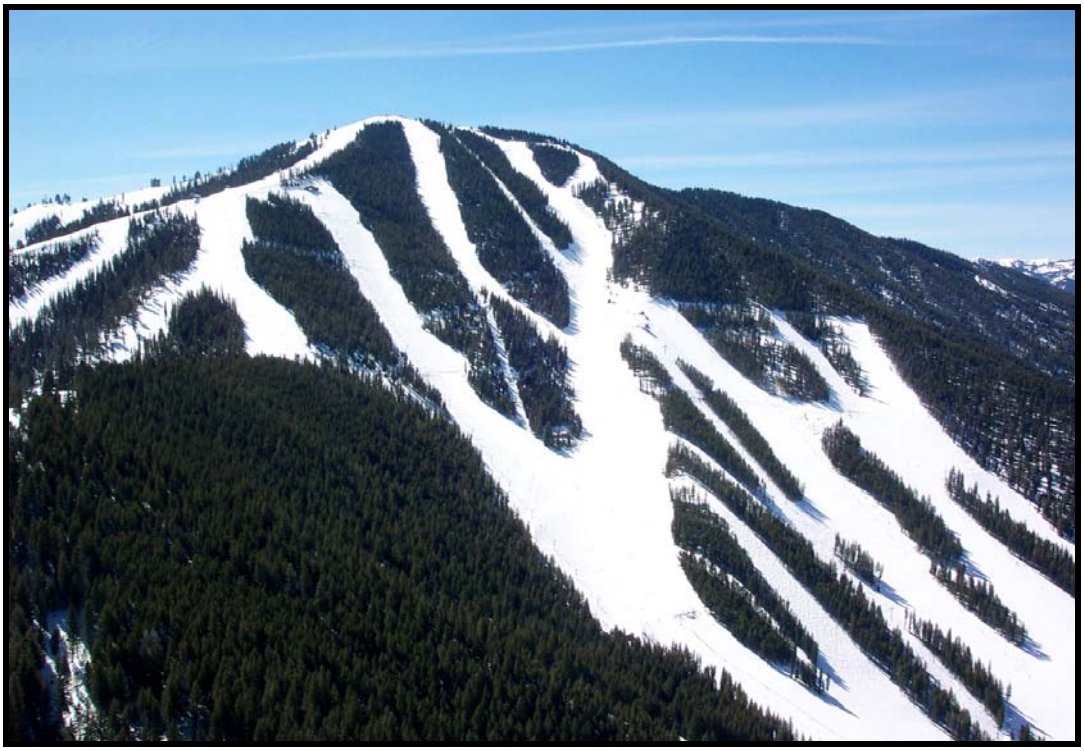
TABLE II.3
INTERNATIONAL SKI TRAIL STANDARDS

TRAIL DESIGNATION	SKIER ABILITY LEVELS
Easier	Beginner & Novice Skiers
More Difficult	Intermediate Skiers
Most Difficult	Advanced & Expert Skiers

TABLE II.4
SKIER SKILL CLASSIFICATIONS

Skill Classification	Acceptable Terrain Gradients	Maximum Gradient
1. Beginner	8 - 15%	20%
2. Novice	15-25%	30%
3. Low Intermediate	25-35%	40%
4. Intermediate	30-40%	45%
5. High Intermediate	35-45%	50%
6. Advanced	45-60%	65%
7. Expert	60%+	

Sun Valley's existing ski trails have been plotted on new topographic base mapping prepared in 2003 at a scale of 1"=400' with 20-foot contours, as illustrated on the Existing Mountain Facilities Maps (Figures 7a and 8a). The presently developed ski trail system includes 76 numbered ski trails and skiways covering 1,024 acres at Bald Mountain and 19 ski trails and skiways covering 69 acres at Dollar Mountain. The ski trail specifications are listed in Table II.5 for Bald Mountain and Table II.6 for Dollar Mountain. In general, the trails have been assigned to the lift that is used to return ski on that particular trail.



Warm Springs North Facing Ski Trails

ecosign
Mountain Resort Planners Ltd.

TABLE II.5
BALD MOUNTAIN
SKI TRAIL INVENTORY

Trail Name		Trail No.	Skill Class	Elevation Top Feet	Elevation Bottom Feet	Total Vert. Feet	Horz. Dist. Feet	Slope Dist. Feet	Percent Slope Avg.	Percent Slope Steep.	Ave. Width Feet	Horz. Area Acres	Slope Area Acres
Lift 1 - River Run													
Lower River Run		1A	2	6,350	5,758	592	3,070	3,127	19%	27%	144	10.13	10.32
Total Lift 1		1						3,127					10.32
Lift 2 - Exhibition													
Olympic Lane/Ridge		2A	3	7,675	6,410	1,265	9,055	9,143	14%	38%	39	8.07	8.15
Olympic		2B	6	7,380	6,600	780	1,590	1,771	49%	59%	192	7.00	7.80
Lower Olympic		2C	3	6,600	6,055	545	1,480	1,577	37%	40%	162	5.49	5.85
Exhibition		2D	6	7,445	6,560	885	1,810	2,015	49%	61%	242	10.06	11.20
		2E	5	7,400	7,270	130	520	536	25%	25%	34	0.41	0.42
Canyon		2F	5	7,680	6,720	960	2,220	2,419	43%	50%	211	10.76	11.72
Total Lift 2		6						17,461					45.14
Lift 3 - Christmas													
Easter Bowl	partial	3A	6	9,020	7,760	1,260	2,910	3,171	43%	53%	489	32.68	20.03
	partial	3B	6	9,020	8,250	770	1,500	1,686	51%	53%	466	16.03	10.14
Little Easter Bowl	partial	3C	6	9,000	8,000	1,000	1,980	2,218	51%	59%	447	20.34	12.82
	partial	3D	7	8,020	7,500	520	880	1,022	59%	76%	73	1.47	0.96
Lower Christmas Ridge	partial	3E	6	8,230	7,080	1,150	2,740	2,972	42%	56%	398	25.02	15.26
Lower Broadway	partial	3F	3	7,380	6,620	760	3,320	3,406	23%	37%	95	7.22	4.17
	partial	3G	7	7,440	6,880	560	770	952	73%	83%	625	11.05	7.68
Christmas Ridge/L.Bowl	partial	3H	6	9,020	7,520	1,500	3,290	3,616	46%	63%	416	31.43	19.43
Christmas Bowl	partial	3I	6	8,980	7,530	1,450	3,180	3,495	46%	59%	479	34.96	21.61
Ridge S. Slopes		3J	6	8,350	7,675	675	2,680	2,764	25%	62%	282	17.35	17.89
Lower Ridge S. Slopes	partial	3K	6	7,805	7,580	225	520	567	43%	48%	281	3.35	2.05
Wolverton		3L	6	8,230	7,740	490	900	1,025	54%	62%	688	14.22	16.19
Rock Garden		3M	6	8,170	7,680	490	1,020	1,132	48%	59%	267	6.26	6.94
Ridge/Upper Holiday	half	3N	5	8,200	7,820	380	980	1,051	39%	48%	157	3.54	1.90
Blue Grouse	half	5J	4	8,400	7,850	550	1,500	1,598	37%	43%	292	10.06	5.36
Cut-Off	half	5K	4	8,860	7,670	1,190	4,520	4,674	26%	45%	159	16.51	8.54
Total Lift 3		14	(not including trail 5J,5K)					29,076	(not including trail 5J,5K)				170.97
Lift 4 - Cold Springs													
Inhibition		4A	7	7,550	6,860	690	1,320	1,489	52%	65%	196	5.93	6.69
Cold Springs Cut-Off		4B	4	7,650	6,620	1,030	2,990	3,162	34%	42%	100	6.89	7.29
		4C	6	7,670	7,300	370	840	918	44%	63%	296	5.71	6.24
		4D	7	7,500	6,750	750	1,590	1,758	47%	66%	345	12.60	13.93
Easter Bowl	partial	3A	6	9,020	7,760	1,260	2,910	3,171	43%	53%	489	32.68	15.58
	partial	3B	6	9,020	8,250	770	1,500	1,686	51%	53%	466	16.03	7.88
Little Easter Bowl	partial	3C	6	9,000	8,000	1,000	1,980	2,218	51%	59%	447	20.34	9.97
	partial	3D	7	8,020	7,500	520	880	1,022	59%	76%	73	1.47	0.75
Lower Christmas Ridge	partial	3E	6	8,230	7,080	1,150	2,740	2,972	42%	56%	398	25.02	11.87
Lower Broadway	partial	3F	3	7,380	6,620	760	3,320	3,406	23%	37%	95	7.22	3.24
	partial	3G	7	7,440	6,880	560	770	952	73%	83%	625	11.05	5.98
Christmas Ridge/L.Bowl	partial	3H	6	9,020	7,520	1,500	3,290	3,616	46%	63%	416	31.43	15.11
Christmas Bowl	partial	3I	6	8,980	7,530	1,450	3,180	3,495	46%	59%	479	34.96	16.81
Lower Ridge S. Slopes	partial	3K	6	7,805	7,580	225	520	567	43%	48%	281	3.35	1.60
Total Lift 4		4	(not including 3A to 3K)					7,328	(not including 3A to 3K)				122.93

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TABLE II.5
BALD MOUNTAIN
SKI TRAIL INVENTORY

Trail Name		Trail No.	Skill Class	Elevation Top Feet	Elevation Bottom Feet	Total Vert. Feet	Horz. Dist. Feet	Slope Dist. Feet	Percent Slope Avg.	Percent Slope Steep.	Ave. Width Feet	Horz. Area Acres	Slope Area Acres
Lift 5 - Lookout Express													
Upper College	2/3 area	5A	3	9,020	7,980	1,040	3,560	3,709	29%	36%	195	15.92	11.06
Lower College	2/3 area	5B	3	7,980	6,360	1,620	7,210	7,390	22%	38%	136	22.44	15.33
Upper River Run		5C	6	8,780	7,920	860	1,650	1,861	52%	59%	237	8.99	10.14
Mid River Run		5D	4	8,080	6,660	1,420	4,500	4,719	32%	41%	87	8.99	9.43
Sunnyside Bowl		5E	6	8,180	7,460	720	1,460	1,628	49%	56%	163	5.45	6.08
		5F	7	7,750	7,020	730	1,270	1,465	57%	65%	426	12.42	14.33
		5G	7	7,360	6,740	620	1,120	1,280	55%	67%	471	12.12	13.85
		5H	7	7,285	6,720	565	1,010	1,157	56%	67%	424	9.84	11.28
		5I	6	7,220	6,780	440	830	939	53%	60%	381	7.26	8.22
Blue Grouse	half	5J	4	8,400	7,850	550	1,500	1,598	37%	43%	292	10.06	5.36
Cut-Off	half	5K	4	8,860	7,670	1,190	4,520	4,674	26%	45%	159	16.51	8.54
Holiday		5L	6	7,770	6,920	850	1,610	1,821	53%	57%	178	6.59	7.45
Ridge/Upper Holiday	half	3N	5	8,200	7,820	380	980	1,051	39%	48%	157	3.54	1.90
Total Lift 5		12	(not including trail 3N)					32,240	(not including trail 3N)				122.96
Lift 6 - Sunnyside													
services the same trails as Lift 5													
Total Lift 6		0						0					0.00
Lift 7 - Greyhawk													
Lower Warm Springs	1/3 area	7A	4	7,365	5,885	1,480	4,720	4,947	31%	43%	267	28.88	10.09
Race Arena	1/3 area	7B	6	6,820	5,890	930	2,690	2,846	35%	53%	158	9.76	3.44
Brick's Island		7C	6	6,950	6,410	540	1,200	1,316	45%	54%	190	5.23	5.74
Greyhawk		7D	6	7,365	5,890	1,475	4,110	4,367	36%	55%	253	23.87	25.36
Hemingway		7E	6	7,360	6,040	1,320	3,920	4,136	34%	54%	205	18.42	19.44
Cozy		7F	5	7,260	6,095	1,165	3,130	3,340	37%	52%	181	13.01	13.88
Total Lift 7		6						20,951					77.95
Lift 8 - Frenchman's													
French Connection		8A	3	6,935	6,595	340	2,580	2,602	13%	14%	34	2.03	2.05
Aujus		8B	5	6,980	6,760	220	550	592	40%	50%	449	5.67	6.11
French Dip		8C	5	7,210	6,595	615	2,050	2,140	30%	50%	100	4.72	4.93
CanCan		8D	6	7,530	6,640	890	2,030	2,217	44%	53%	226	10.54	11.51
Graduate/Under Graduate		8E	6	7,920	6,595	1,325	3,280	3,538	40%	56%	214	16.14	17.41
Janss		8F	6	7,680	6,785	895	2,060	2,246	43%	52%	204	9.65	10.52
Lower College	1/3 area	5B	3	7,980	6,360	1,620	7,210	7,390	22%	38%	136	22.44	7.67
Upper Flying Squirrel	1/3 area	9B	6	8,170	7,680	490	1,730	1,798	28%	43%	213	8.47	2.93
Total Lift 8		6	(not including 5B,9B)					13,335	(not including 5B,9B)				63.13
Lift 9 - Flying Squirrel													
services the same trails as Lift 10													
Total Lift 9		0						0					0.00

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TABLE II.5
BALD MOUNTAIN
SKI TRAIL INVENTORY

Trail Name		Trail No.	Skill Class	Elevation Top Feet	Elevation Bottom Feet	Total Vert. Feet	Horz. Dist. Feet	Slope Dist. Feet	Percent Slope Avg.	Percent Slope Steep.	Ave. Width Feet	Horz. Area Acres	Slope Area Acres
Lift 10 - Challenger													
Limelight		10A	6	9,020	7,280	1,740	4,380	4,713	40%	54%	235	23.65	25.45
Warm Springs Face		10B	5	9,020	7,260	1,760	4,680	5,000	38%	50%	265	28.44	30.38
International		10C	6	8,400	7,840	560	1,530	1,629	37%	62%	111	3.91	4.16
		10D	6	9,020	8,260	760	2,660	2,766	29%	52%	147	8.99	9.35
Upper Hemingway		10E	6	7,480	7,300	180	770	791	23%	63%	67	1.18	1.21
Upper Cozy		10F	6	7,420	7,280	140	600	616	23%	54%	83	1.14	1.17
		10G	6	7,520	7,370	150	600	618	25%	59%	134	1.84	1.90
Lower Warm Springs	2/3 area	7A	4	7,365	5,885	1,480	4,720	4,947	31%	43%	267	28.88	20.18
Race Arena	2/3 area	7B	6	6,820	5,890	930	2,690	2,846	35%	53%	158	9.76	6.89
Upper College	1/3 area	5A	3	9,020	7,980	1,040	3,560	3,709	29%	36%	195	15.92	5.53
Lower Warm Springs	2/3 area	7A	4	7,365	5,885	1,480	4,720	4,947	31%	43%	267	28.88	20.18
Race Arena	2/3 area	7B	6	6,820	5,890	930	2,690	2,846	35%	53%	158	9.76	6.89
Upper Picabo's Street		9A	6	8,170	7,210	960	1,950	2,173	49%	59%	309	13.85	15.44
Upper Flying Squirrel	2/3 area	9B	4	8,170	7,680	490	1,730	1,798	28%	43%	213	8.47	5.87
Lower Flying Squirrel		9C	4	7,680	7,200	480	1,685	1,752	28%	42%	157	6.08	6.32
Arnold's Run		9D	6	7,250	7,040	210	350	408	60%	59%	156	1.25	1.46
Lower Picabo's Street	half	9E	4	7,210	6,555	655	1,905	2,014	34%	44%	273	11.94	6.32
Lower Picabo's Street	half	9E	6	7,210	6,555	655	1,905	2,014	34%	44%	273	11.94	6.32
Total Lift 10		12	(not including 7A,7B,5A,9E class 6)					24,280	(not including 7A,7B,5A, 9E)				147.93
Lift 11 - Lookout acess lift only													
Total Lift 11		0						0					0.00
Lift 12 - Seattle Ridge													
Firetrail		12A	7	8,680	7,480	1,200	4,200	4,368	29%	64%	56	5.38	5.60
Gretchin's Gold		12B	4	8,680	7,730	950	2,800	2,957	34%	42%	268	17.24	18.21
Hourglass		12C	4	7,735	7,480	255	680	726	38%	41%	161	2.51	2.68
Muffy's Medals		12D	3	8,680	7,420	1,260	3,730	3,937	34%	40%	239	20.45	21.59
Bryon's Park		12E	4	8,260	7,720	540	1,640	1,727	33%	43%	194	7.29	7.68
Christin's Silver		12F	4	8,680	7,820	860	2,580	2,720	33%	43%	228	13.48	14.21
Seattle Ridge/Broadway		12G	3	8,680	7,385	1,295	6,060	6,197	21%	40%	173	24.09	24.63
Total Lift 12		7						22,631					94.60
Lift 13 - Kinderspielplatz													
		13A	1	5,760	5,750	10	150	150	7%	7%	120	0.41	0.41
Total Lift 13		1						150					0.41
Lift 14 - Mayday													
Broadway Face		14A	4	9,130	8,370	760	4,110	4,180	18%	42%	64	6.06	6.16
Sigi's Bowl	½ dens.	14B	4	8,880	8,230	650	1,400	1,544	46%	43%	633	20.34	22.43
Farout Bowl	½ dens.	14C	6	8,930	8,030	900	1,730	1,950	52%	56%	465	18.46	20.81
Lefty Bowl	½ dens.	14D	6	9,070	7,980	1,090	2,300	2,545	47%	53%	541	28.59	31.64
Mayday Bowl	½ dens.	14E	6	9,130	7,710	1,420	2,800	3,139	51%	61%	606	38.98	43.71
Lookout Bowl	½ dens.	14F	6	9,140	7,535	1,605	3,670	4,006	44%	56%	439	36.99	40.37
Total Lift 14		6						17,364					165.12
Gun Tower Lane			3	7,670	7,390	280	4,420	4,429	6%	6%	25	2.54	2.54
Total - Bald Mountain		76						36.4 miles					**1,024.0**

Mayday Bowl as Viewed from Seattle Ridge

Typical Skiway

TABLE II.6
DOLLAR MOUNTAIN
SKI TRAIL INVENTORY

Trail Name	Trail No.	Skill Class	Elevation Top Feet	Elevation Botton Feet	Total Vert. Feet	Horz. Dist. Feet	Slope Dist. Feet	Percent Slope Avg.	Percent Slope Steep	Ave. Width Feet	Horz. Area Acres	Slope Area Acres
Lift D1 - Half Dollar												
	1	1	6,122	5,948	174	2,130	2,137	8%	15%	37	1.81	1.82
Hidden Valley	2	2	6,120	6,010	110	400	415	28%	26%	113	1.04	1.08
Graduation	3	2	6,120	5,940	180	1,015	1,031	18%	26%	144	3.36	3.41
Half Dollar Bowl	4	1	6,122	5,936	186	1,760	1,770	11%	17%	114	4.62	4.65
Upper Old Bowl	5b	2	6,098	5,960	138	780	792	18%	20%	97	1.74	1.77
Total Lift D1	5						6144.7					12.73
Lift D2 - Dollar												
Lower Old Bowl	5a	4	6,515	6,110	405	1,660	1,709	24%	43%	81	3.07	3.16
New Bowl	6	4	6,460	6,030	430	1,380	1,445	31%	43%	117	3.70	3.88
Face of Dollar	7	3	6,574	5,940	634	2,810	2,881	23%	39%	120	7.76	7.96
Sepp' s Bowl	8	3	6,570	6,105	465	2,410	2,454	19%	32%	96	5.32	5.42
Sheepherder	9	3	6,480	6,080	400	1,980	2,020	20%	39%	95	4.33	4.42
Total Lift D2	5						10,509					24.84
Lift D3 - Quarter Dollar												
Poverty Flats	10	2	6,118	5,955	163	1,280	1,290	13%	17%	111	3.25	3.28
Poverty Flats	11	1	6,118	5,955	163	1,560	1,568	10%	12%	131	4.69	4.72
Total Lift D3	2						2,859					8.00
Lift D4 - Elkhorn												
	12	3	6,552	6,480	72	500	505	14%	14%	42	0.48	0.48
Joint Venture	13	3	6,578	6,068	510	2,470	2,522	21%	36%	94	5.32	5.43
Arrowhead Way	14	3	6,560	6,265	295	1,110	1,149	27%	35%	110	2.81	2.91
Elkhorn Face	15	5	6,540	6,130	410	1,170	1,240	35%	45%	122	3.29	3.49
Elkhorn Bowl	16	2	6,578	6,020	558	4,090	4,128	14%	26%	111	10.46	10.56
Skiway		3	6,460	6,425	35	570	571	6%	6%	31	0.41	0.41
Total Lift D4	6						10,115					23.28
Lift D5 - Accelerator												
		1	5,951	5,938	13	110	111	12%	12%	80	0.20	0.20
Total Lift D5	1						111					0.20
Total - Dollar Mountain	**19**						**5.6 miles**					**69.1**

Skier Densities

Ecosign has performed on-site research to determine comfortable and safe skier densities at ski areas in many parts of the world. The research consisted of performing on-site guest surveys while simultaneously taking aerial photos of the ski trails by helicopter. One of the questions on the survey asks skiers their subjective opinion of the crowding on the particular trail they skied. Their opinions were then compared with the actual densities recorded in the photos. From these comparisons, we estimated skier densities which provide skiers with a high quality, comfortable experience resulting in good memories and the likelihood of return visits. Densities used in planning ski areas in different parts of the world are listed in Table II.7 and shown graphically in Plate II.3.

TABLE II.7
WORLDWIDE COMPARISON OF SKI TRAIL DENSITIES

Skill Classification	1 Beginner	2 Novice	3 Low Inter.	4 Inter-mediate	5 High Inter.	6 Advanced	7 Expert
Destination							
SAOT	20	20	16	16	12	6	8
On-Slope	8	8	6	6	5	3	4
Regional							
SAOT	30	30	24	24	18	9	12
On-Slope	12	12	9	9	7	4	6
Australia							
SAOT	55	40	32	32	24	12	16
On-Slope	22	16	12	12	10	6	8
Japan							
SAOT	63	63	50	50	40	22	28
On-Slope	25	25	19	19	16	11	14
Eastern North America (Farwell High Standard)							
SAOT	100	60	50	35	20	15	15
On-Slope	45	27	22	15	9	7	7

Note: All of the above densities are in skiers per Acre

In areas such as Europe, western Canada and the western United States, skier densities are relatively low compared to the densities in ski areas in Japan or Australia, where skiers have been historically conditioned to higher densities. For example, densities in Japan are generally three times the densities found in western North American destination resorts.

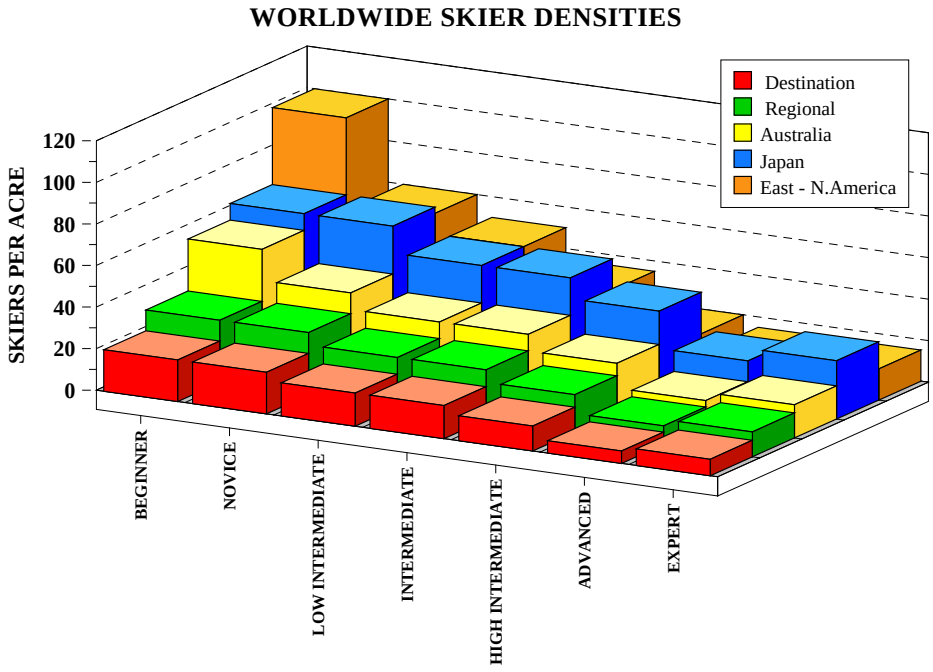

PLATE II.3

Table II.8 lists the "SAOT" (Skiers At One Time) densities and the "On-Slope" densities. The SAOT is based on the total number of skiers at the ski area, including skiers in lift lines, riding lifts, in restaurants and on the ski trails. The "On-Slope" densities take into account only those skiers actually on the ski trails at any given time.

Acceptable skier slope densities tend to decrease as the proficiency of the skier increases. The lower density for better skiers occurs due to their increased speed, and, therefore, longer stopping distances and the general increase in space needed to avoid obstacles and other skiers. As listed, the exception to this rule is that slope densities increase slightly on expert terrain since these steep, ungroomed slopes dictate controlled, short radius turns. Under these conditions, expert skiers have slower speeds and require less space for safe skiing. The densities used for evaluating and analyzing Sun Valley are listed in Table II.8.

TABLE II.8
SUN VALLEY
SKI AREA DENSITIES

	Skier Densities	
Skill Classification	**On Slope**	**At Area**
1 Beginner	8	20
2 Novice	8	20
3 Low Intermediate	6	16
4 Intermediate	6	16
5 High Intermediate	5	12
6 Advanced	3	6
7 Expert	4	8

To accurately portray the terrain balance of the ski area, we computed the terrain available to each of the seven skier skill classifications and then multiplied by the appropriate skier densities to illustrate the distribution of the skiing terrain available to each skier skill level. This exercise is often referred to as "area balancing", and provides management and the planning team with the data necessary to compare the ski trail development with the apparent proportions of the skier market.

As listed in Table II.9, Sun Valley's Bald Mountain has a total of 1,024 acres of return cycle skiing trails and skiways, with a total capacity of approximately 9,060 skiers per day, based on the ski trail densities shown in Table II.8

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TABLE II.9
SUN VALLEY
BALD MOUNTAIN
SKI TRAIL CAPACITIES - EXISTING AREA

Trail Name		Trail No.	Skill Class	Total Vert. Feet	Slope Dist. Feet	Ave. Width Feet	Horz. Area Acres	Slope Area Acres	Skiers At Area Density	Skiers At Area Total
Lift 1 - River Run										
Lower River Run		1A	2	592	3,127	144	10.13	10.32	20	210
Total Lift 1					3,127			10.32		210
Lift 2 - Exhibition										
Olympic Lane/Ridge		2A	3	1,265	9,143	39	8.07	8.15	16	130
Olympic		2B	6	780	1,771	192	7.00	7.80	6	50
Lower Olympic		2C	3	545	1,577	162	5.49	5.85	16	90
Exhibition		2D	6	885	2,015	242	10.06	11.20	6	70
		2E	5	130	536	34	0.41	0.42	12	10
Canyon		2F	5	960	2,419	211	10.76	11.72	12	140
Total Lift 2					17,461			45.14		490
Lift 3 - Christmas										
Easter Bowl	partial	3A	6	1,260	3,171	489	32.68	20.03	6	120
	partial	3B	6	770	1,686	466	16.03	10.14	6	60
Little Easter Bowl	partial	3C	6	1,000	2,218	447	20.34	12.82	6	80
	partial	3D	7	520	1,022	73	1.47	0.96	8	10
Lower Christmas Ridge	partial	3E	6	1,150	2,972	398	25.02	15.26	6	90
Lower Broadway	partial	3F	3	760	3,406	95	7.22	4.17	16	70
	partial	3G	7	560	952	625	11.05	7.68	8	60
Christmas Ridge/L.Bowl	partial	3H	6	1,500	3,616	416	31.43	19.43	6	120
Christmas Bowl	partial	3I	6	1,450	3,495	479	34.96	21.61	6	130
Ridge S. Slopes		3J	6	675	2,764	282	17.35	17.89	6	110
Lower Ridge S. Slopes	partial	3K	6	225	567	281	3.35	2.05	6	10
Wolverton		3L	6	490	1,025	688	14.22	16.19	6	100
Rock Garden		3M	6	490	1,132	267	6.26	6.94	6	40
Ridge/Upper Holiday	half	3N	5	380	1,051	157	3.54	1.90	12	20
Blue Grouse	half	5J	4	550	1,598	292	10.06	5.36	16	90
Cut-Off	half	5K	4	1,190	4,674	159	16.51	8.54	16	140
Total Lift 3					29,076			170.97		1,250
Lift 4 - Cold Springs										
Inhibition		4A	7	690	1,489	196	5.93	6.69	8	50
Cold Springs Cut-Off		4B	4	1,030	3,162	100	6.89	7.29	16	120
		4C	6	370	918	296	5.71	6.24	6	40
		4D	7	750	1,758	345	12.60	13.93	8	110
Easter Bowl	partial	3A	6	1,260	3,171	489	32.68	15.58	6	90
	partial	3B	6	770	1,686	466	16.03	7.88	6	50
Little Easter Bowl	partial	3C	6	1,000	2,218	447	20.34	9.97	6	60
	partial	3D	7	520	1,022	73	1.47	0.75	8	10
Lower Christmas Ridge	partial	3E	6	1,150	2,972	398	25.02	11.87	6	70
Lower Broadway	partial	3F	3	760	3,406	95	7.22	3.24	16	50
	partial	3G	7	560	952	625	11.05	5.98	8	50
Christmas Ridge/L.Bowl	partial	3H	6	1,500	3,616	416	31.43	15.11	6	90
Christmas Bowl	partial	3I	6	1,450	3,495	479	34.96	16.81	6	100
Lower Ridge S. Slopes	partial	3K	6	225	567	281	3.35	1.60	6	10
Total Lift 4					7,328			122.93		900

TABLE II.9
SUN VALLEY
BALD MOUNTAIN
SKI TRAIL CAPACITIES - EXISTING AREA

Trail Name		Trail No.	Skill Class	Total Vert. Feet	Slope Dist. Feet	Ave. Width Feet	Horz. Area Acres	Slope Area Acres	Skiers At Area Density	Skiers At Area Total
Lift 5 - Lookout Express										
Upper College	2/3 area	5A	3	1,040	3,709	195	15.92	11.06	16	180
Lower College	2/3 area	5B	3	1,620	7,390	136	22.44	15.33	16	250
Upper River Run		5C	6	860	1,861	237	8.99	10.14	6	60
Mid River Run		5D	4	1,420	4,719	87	8.99	9.43	16	150
Sunnyside Bowl		5E	6	720	1,628	163	5.45	6.08	6	40
		5F	7	730	1,465	426	12.42	14.33	8	110
		5G	7	620	1,280	471	12.12	13.85	8	110
		5H	7	565	1,157	424	9.84	11.28	8	90
		5I	6	440	939	381	7.26	8.22	6	50
Blue Grouse	half	5J	4	550	1,598	292	10.06	5.36	16	90
Cut-Off	half	5K	4	1,190	4,674	159	16.51	8.54	16	140
Holiday		5L	6	850	1,821	178	6.59	7.45	6	40
Ridge/Upper Holiday	half	3N	5	380	1,051	157	3.54	1.90	12	20
Total Lift 5					32,240			122.96		1,330
Lift 6 - Sunnyside										
services the same trails as Lift 5										
Total Lift 6		0			0			0.00		0
Lift 7 - Greyhawk										
Lower Warm Springs	1/3 area	7A	4	1,480	4,947	267	28.88	10.09	16	160
Race Arena	1/3 area	7B	6	930	2,846	158	9.76	3.44	6	20
Brick's Island		7C	6	540	1,316	190	5.23	5.74	6	30
Greyhawk		7D	6	1,475	4,367	253	23.87	25.36	6	150
Hemingway		7E	6	1,320	4,136	205	18.42	19.44	6	120
Cozy		7F	5	1,165	3,340	181	13.01	13.88	12	170
Total Lift 7					20,951			77.95		650
Lift 8 - Frenchman's										
French Connection		8A	3	340	2,602	34	2.03	2.05	16	30
Aujus		8B	5	220	592	449	5.67	6.11	12	70
French Dip		8C	5	615	2,140	100	4.72	4.93	12	60
CanCan		8D	6	890	2,217	226	10.54	11.51	6	70
Graduate/Under Graduate		8E	6	1,325	3,538	214	16.14	17.41	6	100
Janss		8F	6	895	2,246	204	9.65	10.52	6	60
Lower College	1/3 area	5B	3	1,620	7,390	136	22.44	7.67	16	120
Upper Flying Squirrel	1/3 area	9B	6	490	1,798	213	8.47	2.93	6	20
Total Lift 8					13,335			63.13		530
Lift 9 - Flying Squirrel										
services the same trails as Lift 10										
Total Lift 9					0			0.00		0

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TABLE II.9
SUN VALLEY
BALD MOUNTAIN
SKI TRAIL CAPACITIES - EXISTING AREA

Trail Name		Trail No.	Skill Class	Total Vert. Feet	Slope Dist. Feet	Ave. Width Feet	Horz. Area Acres	Slope Area Acres	Skiers At Area Density	Skiers At Area Total
Lift 10 - Challenger										
Limelight		10A	6	1,740	4,713	235	23.65	25.45	6	150
Warm Springs Face		10B	5	1,760	5,000	265	28.44	30.38	12	360
International		10C	6	560	1,629	111	3.91	4.16	6	20
		10D	6	760	2,766	147	8.99	9.35	6	60
Upper Hemingway		10E	6	180	791	67	1.18	1.21	6	10
Upper Cozy		10F	6	140	616	83	1.14	1.17	6	10
		10G	6	150	618	134	1.84	1.90	6	10
Lower Warm Springs	2/3 area	7A	4	1,480	4,947	267	28.88	20.18	16	320
Race Arena	2/3 area	7B	6	930	2,846	158	9.76	6.89	6	40
Upper College	1/3 area	5A	3	1,040	3,709	195	15.92	5.53	16	90
Lower Warm Springs	2/3 area	7A	4	1,480	4,947	267	28.88	20.18	16	320
Race Arena	2/3 area	7B	6	930	2,846	158	9.76	6.89	6	40
Upper Picabo's Street		9A	6	960	2,173	309	13.85	15.44	6	90
Upper Flying Squirrel	2/3 area	9B	4	490	1,798	213	8.47	5.87	16	90
Lower Flying Squirrel		9C	4	480	1,752	157	6.08	6.32	16	100
Arnold's Run		9D	6	210	408	156	1.25	1.46	6	10
Lower Picabo's Street	half	9E	4	655	2,014	273	11.94	6.32	16	100
Lower Picabo's Street	half	9E	6	655	2,014	273	11.94	6.32	6	40
Total Lift 10					24,280			147.93		1,500
Lift 11 - Lookout acess lift only										
Total Lift 11		0			0			0.00		0
Lift 12 - Seattle Ridge										
Firetrail		12A	7	1,200	4,368	56	5.38	5.60	8	40
Gretchin's Gold		12B	4	950	2,957	268	17.24	18.21	16	290
Hourglass		12C	4	255	726	161	2.51	2.68	16	40
Muffy's Medals		12D	3	1,260	3,937	239	20.45	21.59	16	350
Bryon's Park		12E	4	540	1,727	194	7.29	7.68	16	120
Christin's Silver		12F	4	860	2,720	228	13.48	14.21	16	230
Seattle Ridge/Broadway		12G	3	1,295	6,197	173	24.09	24.63	16	390
Total Lift 12					22,631			94.60		1,460
Lift 13 - Kinderspielplatz										
		13A	1	10	150	120	0.41	0.41	40	20
Total Lift 13					150			0.41		20
Lift 14 - Mayday										
Broadway Face		14A	4	760	4,180	64	6.06	6.16	16	100
Sigi's Bowl	½ dens.	14B	4	650	1,544	633	20.34	22.43	8	180
Farout Bowl	½ dens.	14C	6	900	1,950	465	18.46	20.81	3	60
Lefty Bowl	½ dens.	14D	6	1,090	2,545	541	28.59	31.64	3	90
Mayday Bowl	½ dens.	14E	6	1,420	3,139	606	38.98	43.71	3	130
Lookout Bowl	½ dens.	14F	6	1,605	4,006	439	36.99	40.37	3	120
Total Lift 14					17,364			165.12		680
Gun Tower Lane			3	280	4,429	25	2.54	2.54	16	40
Total - Bald Mountain					**36.4 miles**			**1,024.0 Acres**		**9,060**

As listed in Table II.10, Sun Valley's Dollar Mountain has a total of 69 slope acres of return cycle skiing trails and skiways, with a total capacity of approximately 1,240 skiers per day, based on the ski trail densities shown in Table II.8.

TABLE II.10
DOLLAR MOUNTAIN
SKI TRAIL CAPACITIES - EXISTING AREA

Trail Name	Trail No.	Skill Class	Total Vert. Feet	Slope Dist. Feet	Ave. Width Feet	Horz. Area Acres	Slope Area Acres	Skiers At Area Density	Skiers At Area Total
Lift D1 - Half Dollar									
	1	1	174	2,137	37	1.81	1.82	20	40
Hidden Valley	2	2	110	415	113	1.04	1.08	20	20
Graduation	3	2	180	1,031	144	3.36	3.41	20	70
Half Dollar Bowl	4	1	186	1,770	114	4.62	4.65	20	90
Upper Old Bowl	5b	2	138	792	97	1.74	1.77	20	40
Total Lift D1	5			6144.7			12.73		260
Lift D2 - Dollar									
Lower Old Bowl	5a	4	405	1,709	81	3.07	3.16	16	50
New Bowl	6	4	430	1,445	117	3.70	3.88	16	60
Face of Dollar	7	3	634	2,881	120	7.76	7.96	16	130
Sepp' s Bowl	8	3	465	2,454	96	5.32	5.42	16	90
Sheepherder	9	3	400	2,020	95	4.33	4.42	16	70
Total Lift D2	5			10,509			24.84		400
Lift D3 - Quarter Dollar									
Poverty Flats	10	2	163	1,290	111	3.25	3.28	20	70
Poverty Flats	11	1	163	1,568	131	4.69	4.72	20	90
Total Lift D3	2			2,859			8.00		160
Lift D4 - Elkhorn									
	12	3	72	505	42	0.48	0.48	16	10
Joint Venture	13	3	510	2,522	94	5.32	5.43	16	90
Arrowhead Way	14	3	295	1,149	110	2.81	2.91	16	50
Elkhorn Face	15	5	410	1,240	122	3.29	3.49	12	40
Elkhorn Bowl	16	2	558	4,128	111	10.46	10.56	20	210
Skiway		3	35	571	31	0.41	0.41	16	10
Total Lift D4	6			10,115			23.28		410
Lift D5 - Accelerator									
		1	13	111	80	0.20	0.20	40	10
Total Lift D5	1			111			0.20		10
Total - Dollar Mountain	**19**			**5.6**			**69.1**	**Acres**	**1,240**

The Cumulative Ski Trail Balance Statement listed in Table II.11, shows the balance of the existing return cycle skiing trails according to the seven skier skill classifications and compares them to the balance of the skier market. Plate II.4 indicates that the presently developed ski trails at Bald Mountain are unbalanced, with low intermediate, intermediate and the expert classes achieving the closest balance to the skier market. There is a significant shortage of beginner, novice and high intermediate terrain and a huge excess of advanced terrain.

TABLE II.11
BALD MOUNTAIN
CUMULATIVE SKI TRAIL BALANCE STATEMENT

Skill Classification	Acres	Skiers	Balance	Ideal
1 Beginner	0.4	20	0.2%	5%
2 Novice	10.3	210	2.3%	10%
3 Low Intermediate	109.3	1,750	19.4%	20%
4 Intermediate	164.6	2,460	27.3%	30%
5 High Intermediate	71.2	850	9.4%	20%
6 Advanced	584.5	3,090	34.3%	10%
7 Expert	81.1	640	7.1%	5%
TOTALS	**1,021.5**	**9,020**	**100%**	**100%**

Average Density =	9.0	Skiers/Acre
Optimum Density =	11.7	Skiers/Acre
Weighted Demand =	15,549	VTF/Skier/Day

BALD MOUNTAIN
CUMULATIVE SKI TRAIL BALANCE

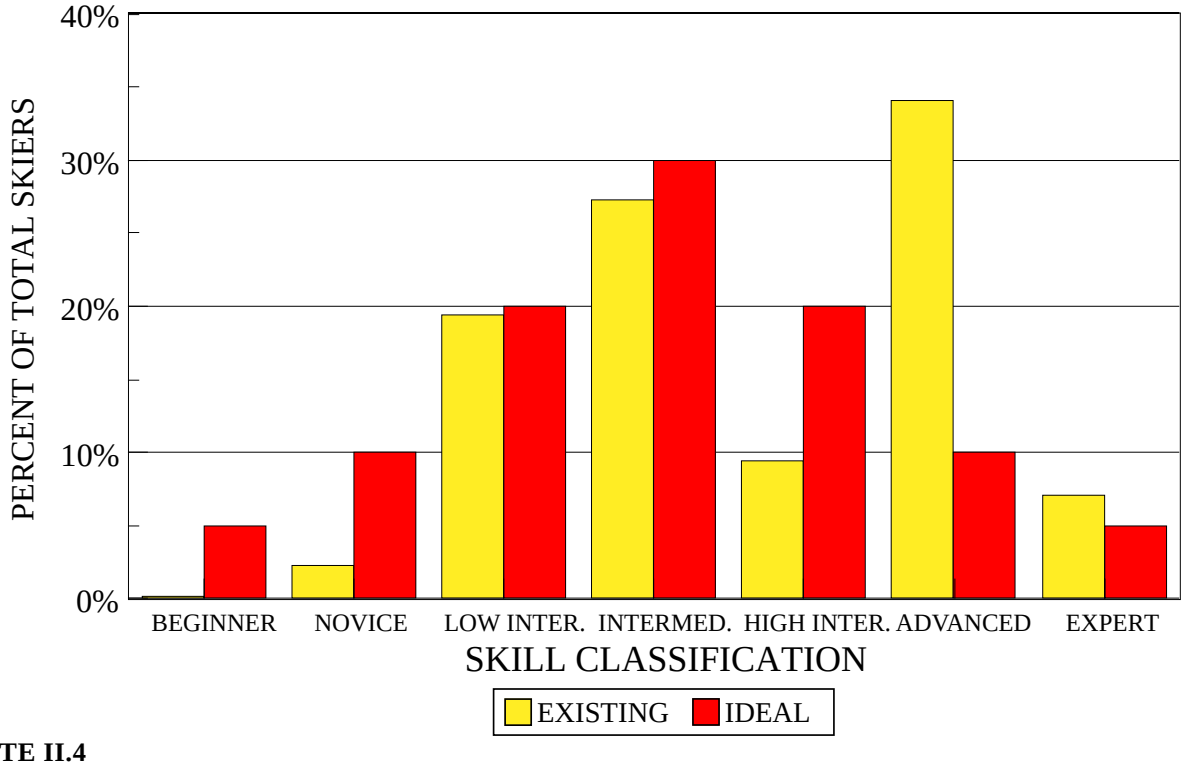

PLATE II.4

Table II.12 shows the balance of the existing ski trails at Dollar Mountain according to the seven skier skill classifications, and compares them to the balance of the skier market. Plate II.5 indicates that the presently developed ski trails at Dollar Mountain are quite unbalanced, with excesses of beginner, novice and low intermediate terrain and severe shortages of intermediate to expert terrain. In the truest sense, there is no high-end terrain available at Dollar Mountain, resulting in skiers in those skill classes going to Bald Mountain.

TABLE II.12
DOLLAR MOUNTAIN
CUMULATIVE SKI TRAIL BALANCE STATEMENT

Skill Classification	Acres	Skiers	Balance	Ideal
1 Beginner	11.4	230	18.5%	5%
2 Novice	20.1	410	33.1%	10%
3 Low Intermediate	27.0	450	36.3%	20%
4 Intermediate	7.0	110	8.9%	30%
5 High Intermediate	3.5	40	3.2%	20%
6 Advanced	0.0	0	0.0%	10%
7 Expert	0.0	0	0.0%	5%
TOTALS	69.1	1,240	100%	100%

Average Density =	21.4	Skiers/Acre
Optimum Density =	17.9	Skiers/Acre
Weighted Demand =	7,870	VTF/Skier/Day

DOLLAR MOUNTAIN
CUMULATIVE SKI TRAIL BALANCE

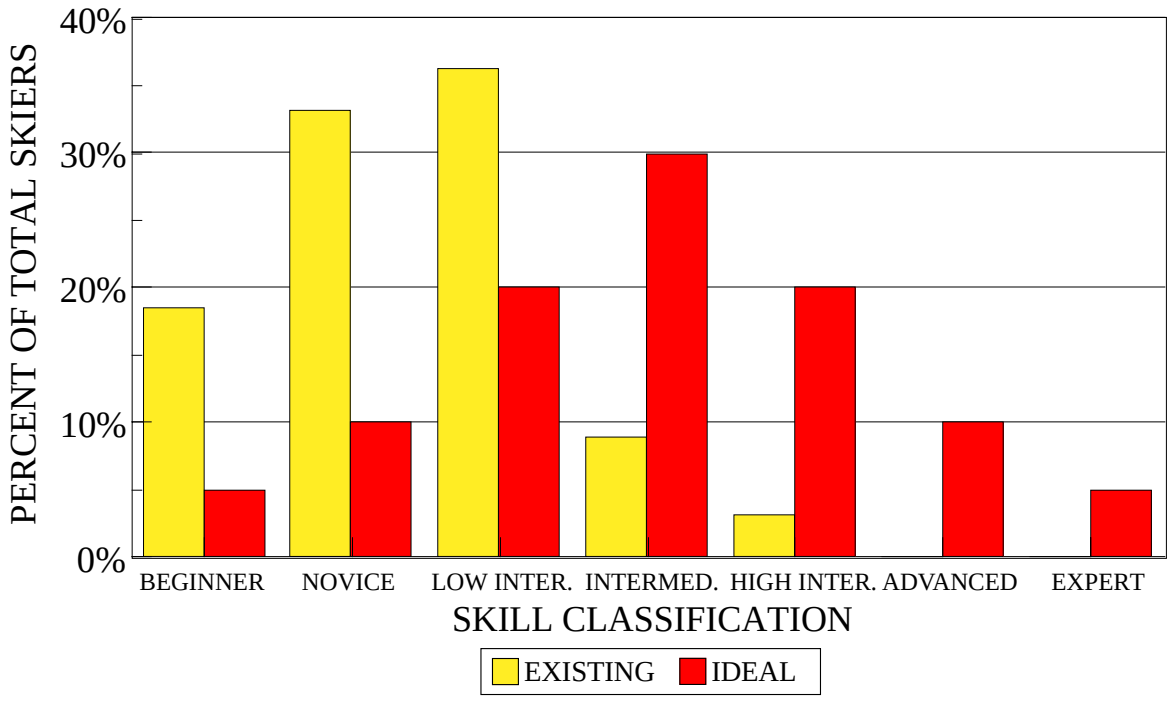

PLATE II.5

When the ski trails from both Dollar Mountain and Bald Mountain are combined, the balance appears much better than either mountain individually. As listed in Table II.13 and illustrated in Plate II.6, when combined, there are trails in every skill class with a fairly good overall balance. If these two ski areas were linked more closely, the combined trail balance is much closer to the ideal skier market balance. However, at present, these two mountains stand as separate ski areas; one for advanced skiers and one for beginner and novice skiers.

TABLE II.13
BALD AND DOLLAR MOUNTAINS COMBINED
CUMULATIVE SKI TRAIL BALANCE STATEMENT

Skill Classification	Acres	Skiers	Balance	Ideal
1 Beginner	11.8	250	2.4%	5%
2 Novice	30.4	620	6.0%	10%
3 Low Intermediate	136.3	2,200	21.4%	20%
4 Intermediate	171.7	2,570	25.0%	30%
5 High Intermediate	74.7	890	8.7%	20%
6 Advanced	584.5	3,090	30.1%	10%
7 Expert	81.1	640	6.2%	5%
TOTALS	1,090.5	10,260	100%	100%

Average Density =	9.8	Skiers/Acre
Optimum Density =	12.5	Skiers/Acre
Weighted Demand =	14,621	VTF/Skier/Day

BALD AND DOLLAR MOUNTAINS COMBINED
CUMULATIVE SKI TRAIL BALANCE

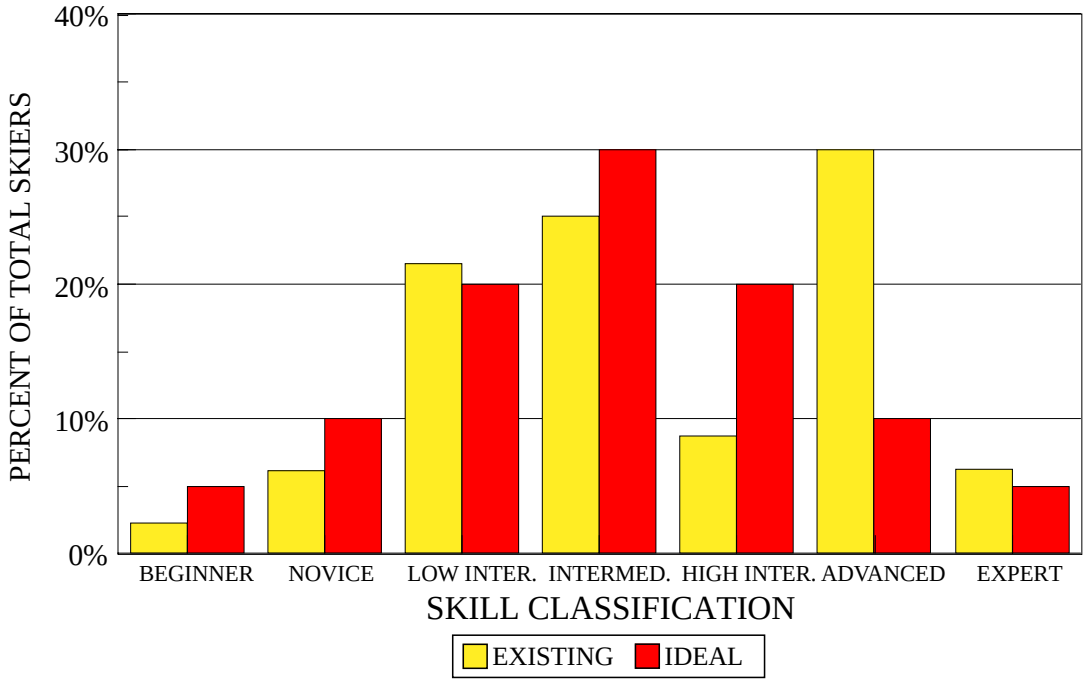

PLATE II.6

.6 Mountain Capacity Analysis

Skier Carrying Capacity

The determination of an area's Skier Carrying Capacity (SCC) is perhaps the most critical step in ski area planning. Often referred to as the "Comfortable Carrying Capacity" or the "Skiers at One Time", this figure represents the number of skiers that can be safely supported by an area's lift and ski trail system while providing a quality experience to each skier ability level. Skier Carrying Capacity is determined via the integration of lift capacity, operating hours, acceptable slope densities, slope gradients, skier skill classifications and vertical feet of lift-serviced terrain.

Each skier ability level places different demands upon an area's lift and ski trail system. Empirical observations have determined that each skier ability level will ski a relatively constant number of vertical feet per day. As the proficiency of the skier increases, the demand for vertical feet also increases. During the past several years, Ecosign has undertaken and reviewed substantial research dealing with skiing demand, skier skill distribution and skier densities. These reviews have continued to support the bell curve distribution of skier skill levels (Table II.14, Plate II.7) and the current normal vertical skiing demands.

TABLE II.14
SUN VALLEY
SKIING DEMAND BY SKILL CLASSIFICATION

Skill Classification	Planning Goals	Skier Demand VTF/Day		
		Low	Average	High
1 Beginner	5%	2,000	2,320	3,090
2 Novice	10%	4,500	5,225	6,950
3 Low Intermediate	20%	6,000	6,970	9,270
4 Intermediate	30%	8,000	9,290	12,360
5 High Intermediate	20%	10,000	12,540	16,680
6 Advanced	10%	12,600	14,628	19,460
7 Expert	5%	18,000	20,904	27,800
Weighted Average		**8,310**	**9,836**	**13,083**

In Europe, western Canada and the western United States, we generally use the industry high VTF demand to ensure a quality, uncrowded skiing experience for the better conditioned, more aggressive skiers. The average, or even the low level of demand is commonly found in Japan, Australia and Korea. Ecosign feels that the high level of VTF demand is suitable for evaluation and planning of Sun Valley.

SKIER SKILL CLASS DISTRIBUTION

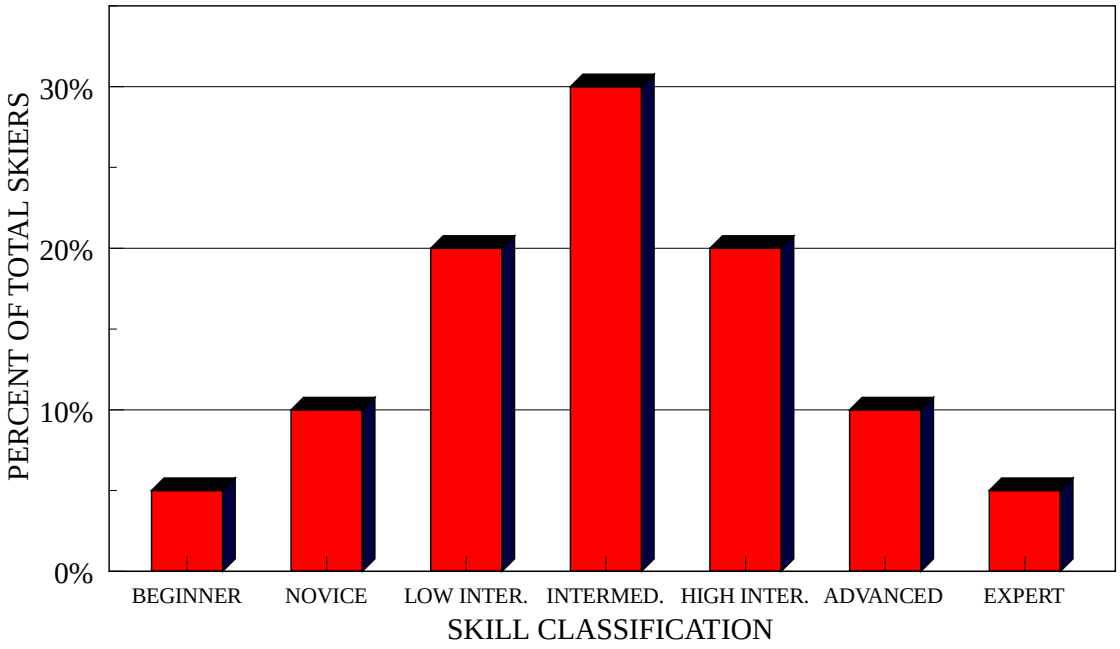

PLATE II.7

Table II.15 summarizes the planning parameters which will be used for evaluating and planning at Sun Valley.

TABLE II.15
SUN VALLEY
PLANNING PARAMETERS

Skill Classification	Skill Mix	Acceptable Terrain Gradients	Skier Demand VTF/Day	Skier Densities	
				On Trail	At Area
1 Beginner	5%	8-15%	3,090	8	20
2 Novice	10%	15-25%	6,950	8	20
3 Low Intermediate	20%	25-35%	9,270	6	16
4 Intermediate	30%	30-40%	12,360	6	16
5 High Intermediate	20%	35-45%	16,680	5	12
6 Advanced	10%	45-60%	19,460	3	6
7 Expert	5%	60% +	27,800	4	8

Sun Valley SCC Analysis

Based upon the design VTF demand, we have calculated the Skier Carrying Capacity (SCC) of Sun Valley's existing ski lift facilities, as listed in Table II.16. This analysis assumes that Sunnyside and Flying Squirrel are only operated on bad weather days and therefore, do not contribute SCC to the peak day capacity. This analysis also recognizes that the River Run Quad has been installed at a rated

capacity that is much too high for 100 percent use for return cycle skiing, but is absolutely necessary for morning staging; therefore the calculated SCC is limited to double the capacity of the trail serviced by this lift. Based upon this analysis, the existing lift system at Bald Mountain can comfortably accommodate 9,200 skiers per day and Dollar Mountain can accommodate 1,480 skiers per day.

The capacity analysis assumes that skiers are distributed throughout the mountain, with the waiting time for each lift equal to the lift's ride time, except on detachable, high speed lifts where the waiting time is double the ride time. The VTF demand on each lift is determined by the terrain balance of the ski trails serviced by that lift.

TABLE II.16
BALD MOUNTAIN
SKIER CARRYING CAPACITY

Lift No.	Lift Name	Lift Type	Hourly Capacity	Vertical Feet	VTF/Hr (000)	VTF Demand	Loading Effic.	Access Reduc.	SCC
1	River Run	D4C	2,400	614	1,474	8,340	95%	30%	420
2	Exhibition	3C	1,500	1322	1,983	14,034	85%	5%	800
3	Christmas	D4C	2,400	1363	3,271	21,607	95%	3%	940
4	Cold Springs	2C	1,200	1060	1,272	19,986	90%	15%	320
5	Lookout Express	D4C	1,800	2674	4,813	19,247	95%	19%	1,300
6	Sunnyside	3C	1,500	1840	2,760	14,000	85%	100%	0
7	Greyhawk	D4C	2,400	1488	3,571	20,382	95%	0%	1,170
8	Frenchman's	D4C	1,800	1502	2,704	19,073	95%	0%	880
9	Flying	2C	1,200	1611	1,933	14,000	90%	100%	0
10	Challenger	D4C	1,500	3152	4,728	18,353	95%	29%	1,170
11	Lookout	3C	1,800	129	232	10,000	85%	100%	0
12	Seattle	D4C	2,400	1303	3,127	13,460	95%	0%	1,380
13	Kinderspielplatz	HT	300	10	3	500	80%	0%	30
14	Mayday	3C	1,600	1613	2,581	16,536	85%	8%	790
Total - Bald Mountain			**23,800**		**34,452**				**9,200**

Lift No.	Lift Name	Lift Type	Hourly Capacity	Vertical Feet	VTF/Hr (000)	VTF Demand	Loading Effic.	Access Reduc.	SCC
D1	Half Dollar	2C	1,000	190	190	5,020	90%	0%	240
D2	Dollar	2C	1,200	640	768	10,120	90%	10%	430
D3	Quarter Dollar	2C	1,200	168	202	4,779	90%	0%	270
D4	Elkhorn	3C	1,400	554	776	8,805	85%	9%	480
D5	Accelerator	MC	400	13	5	400	70%	0%	60
Total - Dollar Mountain			**5,200**		**1,940**				**1,480**

Total Sun Valley			**29,000**		**36,393**				**10,680**

Notes: River Run SCC set at double the trail capacity
Sunnyside & Flying Squirrel operate in bad weather only

.7 Lift and Trail Balance Statement

The ski trail balance by lift system (Table II.17 & Plate II.8) portrays the relationship between each of the major lift and ski trail systems, as well as the proportionate amount of ski terrain available to each skier skill level in each lift system.

TABLE II.17
BALD MOUNTAIN
TRAIL BALANCE BY LIFT SYSTEM

Lift No.	1	2	3	4	5	7	8	10	12	13	14	
Lift Name	River Run	Exhibition	Christmas	Cold Springs	Lookout Express	Greyhawk	Frenchman's	Challenger	Seattle Ridge	Kinder-spielplatz	Mayday	
Lift Type	D4C	3C	D4C	2C	D4C	D4C	D4C	D4C	D4C	HT	3C	
Lift Capacity	420	800	940	320	1,300	1,170	880	1,170	1,380	30	790	Skiers/Day
Trail Capacity	210	490	1,250	900	1,330	650	530	1,500	1,460	20	680	Skiers/Day
Trails:Lifts	50%	61%	133%	281%	102%	56%	60%	128%	106%	67%	86%	
Average Density	40.7	17.7	5.5	2.6	10.6	15.0	13.9	7.9	14.6	73.2	4.8	Skiers/Acre
Optimum Density	20.0	12.3	8.6	8.4	12.6	10.0	10.3	12.1	15.8	20.0	10.1	Skiers/Acre
Demand VTF	8,340	14,034	21,607	19,986	19,247	20,382	19,073	18,353	13,460	3,090	16,536	VTF/Skier/Day
Balance												
Beginner	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
Novice	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Low Intermediate	0%	45%	6%	6%	32%	0%	28%	6%	51%	0%	0%	
Intermediate	0%	0%	18%	13%	29%	25%	0%	41%	47%	0%	41%	
High Intermediate	0%	31%	2%	0%	2%	26%	25%	24%	0%	0%	0%	
Advanced	0%	24%	69%	57%	14%	49%	47%	29%	0%	0%	59%	
Expert	0%	0%	6%	24%	23%	0%	0%	0%	3%	0%	0%	

SUN VALLEY – BALD MOUNTAIN
LIFT VS. TRAIL CAPACITY

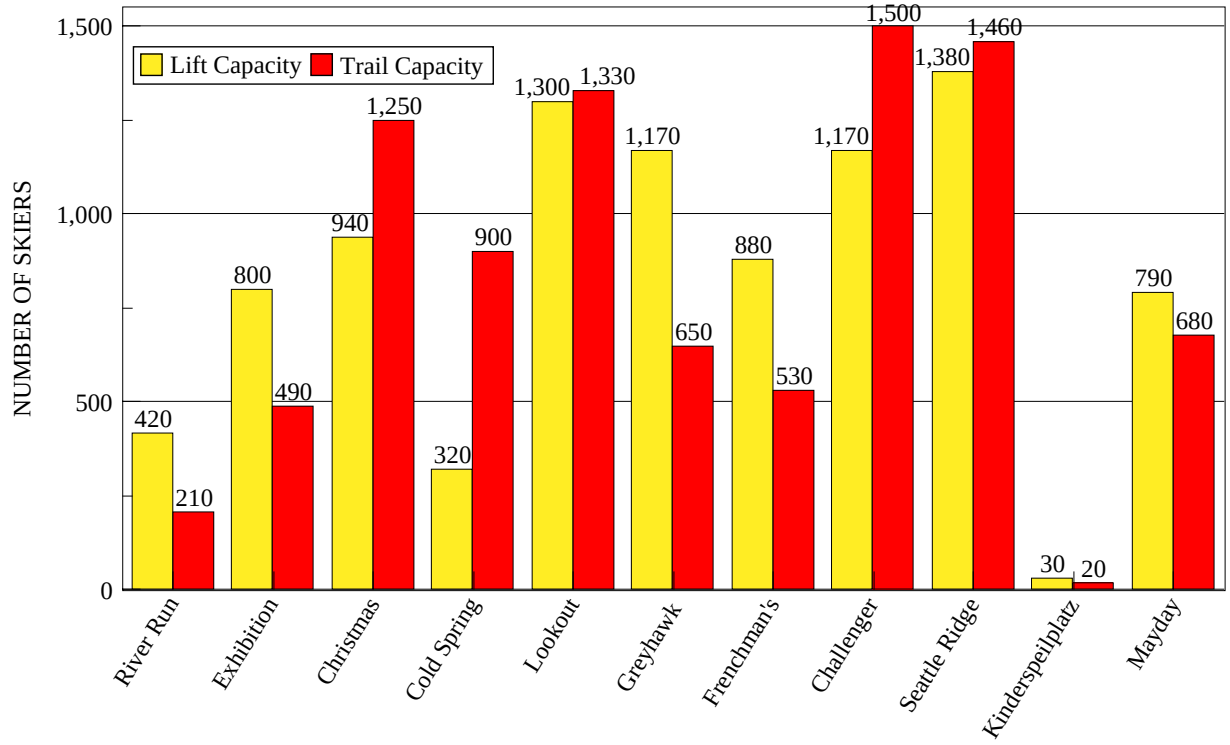

PLATE II.8

Table II.18 lists the Dollar Mountain trail balance by lift system.

TABLE II.18
SUN VALLEY
DOLLAR MOUNTAIN
TRAIL BALANCE BY LIFT SYSTEM

Lift No.	D1	D2	D3	D4	D5	
Lift Name	Half Dollar	Dollar	Quarter Dollar	Elkhorn	Accelerator	
Lift Type	2C	2C	2C	3C	MC	
Lift Capacity	240	430	270	480	60	Skiers/Day
Trail Capacity	260	400	160	410	10	Skiers/Day
Trails:Lifts	108%	93%	59%	85%	17%	
Average Density	18.9	17.3	33.8	20.6	300.0	Skiers/Acre
Optimum Density	20.0	16.0	20.0	17.7	20.0	Skiers/Acre
Demand VTF	5,020	10,120	4,779	8,805	400	VTF/Skier/Day
Balance						
Beginner	50%	0%	56%	0%	100%	
Novice	50%	0%	44%	51%	0%	
Low Intermediate	0%	73%	0%	39%	0%	
Intermediate	0%	28%	0%	0%	0%	
High Intermediate	0%	0%	0%	10%	0%	
Advanced	0%	0%	0%	0%	0%	
Expert	0%	0%	0%	0%	0%	

Plate II.9 graphically illustrates the relationship between lift and trail capacities for each of Sun Valley's lift systems.

SUN VALLEY – DOLLAR MOUNTAIN
LIFT VS. TRAIL CAPACITY

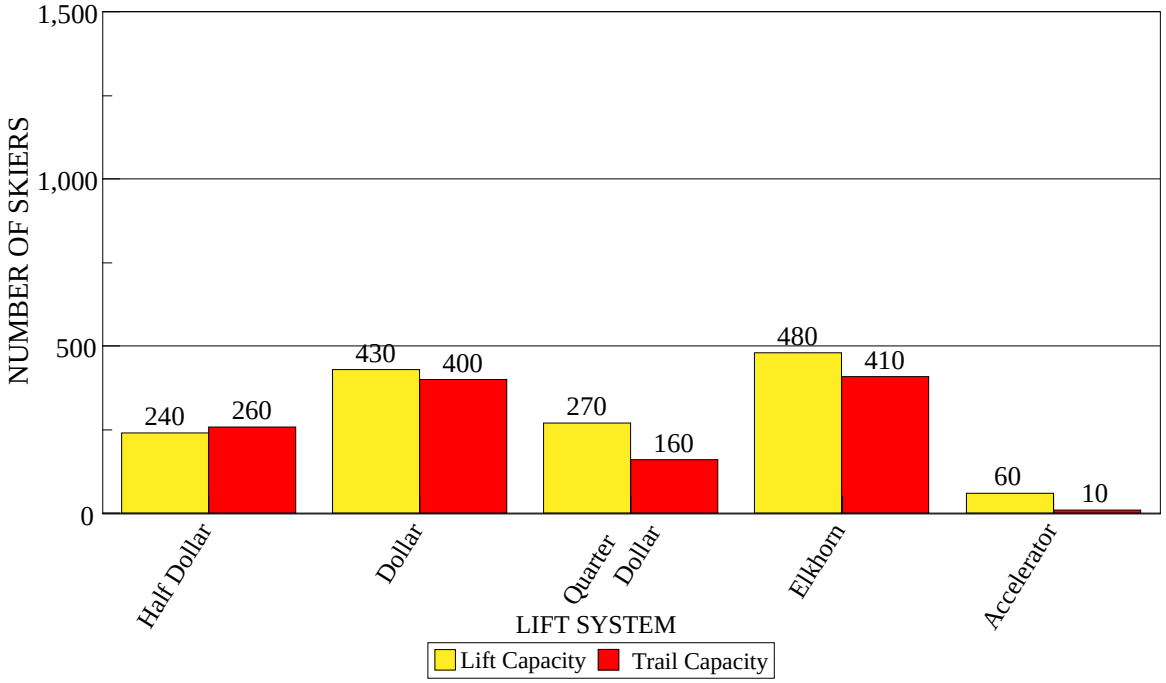

PLATE II.9

Top Terminal Frenchman's Detachable Chairlift

.8 Lift Ride Analysis

Bald Mountain

The operations management at Sun Valley collects lift ridership data each season. Lift ridership for each lift is counted from the time the lift opens to the public until it is closed each day. The lift ride analysis is a very important analysis, as it provides accurate, reliable data on the actual, rather than perceived utilization of the lifts and the popularity of each lift when compared to other lifts. The data required for a lift ride analysis is a physical count of the actual number of rides on each lift, as well as the lift specifications, the hours of operation and the number of skiers at the area. Detailed lift ride counts for the top 20 skier visitation days for the three years of operation from 1999/2000, 2000/2001 and 2001/2002 have been analyzed. The summary of this analysis is listed in Table II.19.

Total Rides

Plate II.10 illustrates the total rides that occurred on the top 20 day over the last three seasons.

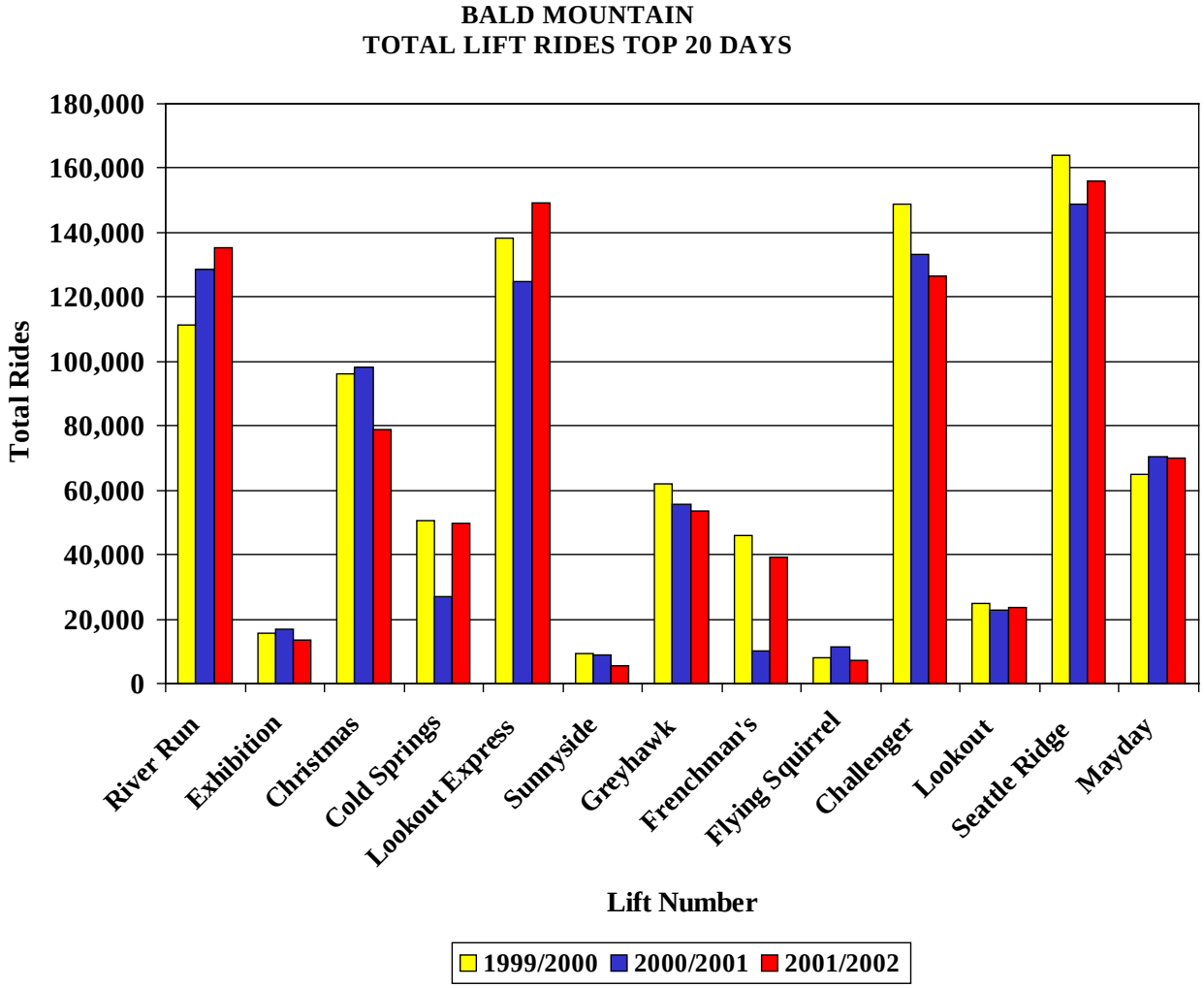

PLATE II.10

The Seattle Ridge lift had the most rides over these three seasons. An interesting trend has occurred with the number of rides on the River Run and Lookout Express detachable quad chairs, increasing to a point greater than the Challenger detachable quad. A shift in the number of skiers staging from, and using the River Run side of the mountain has become very apparent. While most of the detachable quad lifts have performed very well, the Frenchman's detachable has not fared so well. This may be due to the fact that the snowmaking system for this region has not been activated yet due to the approval process. Older fixed grip lifts such as Exhibition, Sunnyside and Flying Squirrel are not very well utilized.

ecosign
Mountain Resort Planners Ltd.

TABLE II.19
BALD MOUNTAIN LIFT RIDE ANALYSIS
TOP 20 DAYS - 1999/2000 TO 2001/2002

2001/2002

Lift Number	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
Lift Name	River Run D4C	Exhibition 3C	Christmas D4C	Cold Springs 2C	Lookout Express D4C	Sunnyside 3C	Greyhawk D4C	French-man's D4C	Flying Squirrel 2C	Challenger D4C	Lookout 3C	Seattle Ridge D4C	Mayday 3C	Rides
Total	135,116	13,365	78,681	49,546	149,211	5,382	53,733	39,413	7,282	126,420	23,593	156,036	70,113	907,891
% of Total Rides	14.9%	1.5%	8.7%	5.5%	16.4%	0.6%	5.9%	4.3%	0.8%	13.9%	2.6%	17.2%	7.7%	100.0%
Hourly Capacity	2,400	1,500	2,400	1,200	1,800	1,500	2,400	1,800	1,200	1,500	1,800	2,400	1,600	23,500
Total Hours	140	130	135	130	135	122	140	130	105	135	120	125	130	1,797
Potential Capacity	336,000	195,000	324,000	156,000	243,000	183,000	336,000	234,000	126,000	202,500	216,000	300,000	208,000	3,059,500
% Potential	11.0%	6.4%	10.6%	5.1%	7.9%	6.0%	11.0%	7.6%	4.1%	6.6%	7.1%	9.8%	6.8%	
EPR	1.36	0.23	0.82	1.07	2.07	0.10	0.54	0.57	0.19	2.10	0.37	1.75	1.14	
Utilization	40.2%	6.9%	24.3%	31.8%	61.4%	2.9%	16.0%	16.8%	5.8%	62.4%	10.9%	52.0%	33.7%	29.7%
Vertical	614	1,322	1,363	1,060	2,674	1,840	1,488	1,502	1,611	3,152	129	1,303	1,613	
VTM (000)	82,961	17,669	107,242	52,519	398,990	9,903	79,955	59,198	11,731	398,476	3,043	203,315	113,092	1,538,095

Total Skier Visits = 90,516 Rides/Skier = 10 Average VTM = 16,993

2000/2001

Lift Number	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
Lift Name	River Run D4C	Exhibition 3C	Christmas D4C	Cold Springs 2C	Lookout Express D4C	Sunnyside 3C	Greyhawk D4C	French-man's D4C	Flying Squirrel 2C	Challenger D4C	Lookout 3C	Seattle Ridge D4C	Mayday 3C	Rides
Total	128,612	16,823	98,332	26,993	124,874	8,868	55,819	10,036	11,461	133,083	22,893	148,857	70,597	857,248
% of Total Rides	15.0%	2.0%	11.5%	3.1%	14.6%	1.0%	6.5%	1.2%	1.3%	15.5%	2.7%	17.4%	8.2%	100.0%
Hourly Capacity	2,400	1,500	2,400	1,200	1,800	1,500	2,400	1,800	1,200	1,500	1,800	2,400	1,600	23,500
Total Hours	140	119	135	91	135	119	140	72	91	135	120	125	130	1,672
Potential Capacity	336,000	178,500	324,000	109,200	243,000	178,500	336,000	128,700	109,200	202,500	216,000	300,000	208,000	2,869,600
% Potential	11.7%	6.2%	11.3%	3.8%	8.5%	6.2%	11.7%	4.5%	3.8%	7.1%	7.5%	10.5%	7.2%	
EPR	1.28	0.32	1.02	0.83	1.72	0.17	0.56	0.26	0.35	2.20	0.35	1.66	1.14	
Utilization	38.3%	9.4%	30.3%	24.7%	51.4%	5.0%	16.6%	7.8%	10.5%	65.7%	10.6%	49.6%	33.9%	29.9%
Vertical	614	1,322	1,363	1,060	2,674	1,840	1,488	1,502	1,611	3,152	129	1,303	1,613	
VTM (000)	78,968	22,240	134,027	28,613	333,913	16,317	83,059	15,074	18,464	419,478	2,953	193,961	113,873	1,460,938

Total Skier Visits = 89,403 Rides/Skier = 10 Average VTM = 16,341

1999/2000

Lift Number	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
Lift Name	River Run D4C	Exhibition 3C	Christmas D4C	Cold Springs 2C	Lookout Express D4C	Sunnyside 3C	Greyhawk D4C	French-man's D4C	Flying Squirrel 2C	Challenger D4C	Lookout 3C	Seattle Ridge D4C	Mayday 3C	Rides
Total	111,482	15,418	96,197	50,443	138,240	9,470	61,867	46,039	7,799	148,861	24,945	163,831	64,908	939,500
% of Total Rides	11.9%	1.6%	10.2%	5.4%	14.7%	1.0%	6.6%	4.9%	0.8%	15.8%	2.7%	17.4%	6.9%	100.0%
Hourly Capacity	2,400	1,500	2,400	1,200	1,800	1,500	2,400	1,800	1,200	1,500	1,800	2,400	1,600	23,500
Total Hours	140	98	135	117	135	98	140	117	49	135	108	125	130	1,647
Potential Capacity	336,000	147,000	324,000	140,400	243,000	147,000	336,000	210,600	58,800	202,500	194,400	300,000	208,000	2,847,700
% Potential	11.8%	5.2%	11.4%	4.9%	8.5%	5.2%	11.8%	7.4%	2.1%	7.1%	6.8%	10.5%	7.3%	
EPR	1.01	0.32	0.90	1.09	1.72	0.20	0.56	0.66	0.40	2.23	0.39	1.66	0.95	
Utilization	33.2%	10.5%	29.7%	35.9%	56.9%	6.4%	18.4%	21.9%	13.3%	73.5%	12.8%	54.6%	31.2%	33.0%
Vertical	614	1,322	1,363	1,060	2,674	1,840	1,488	1,502	1,611	3,152	129	1,303	1,613	
VTM (000)	68,450	20,383	131,117	53,470	369,654	17,425	92,058	69,151	12,564	469,210	3,218	213,472	104,697	1,624,866

Total Skier Visits = 92,804 Rides/Skier = 10 Average VTM = 17,509

Utilization

Plate II.11 shows the utilization rate for each lift during the top 20 days. Lift utilization is the ratio between the actual number of rides that a lift received, divided by the potential number of rides that the lift produces over the period of the top 20 days, times 100 percent. Higher utilization rates indicate a more effective use of the lift resource and, hence, investment.

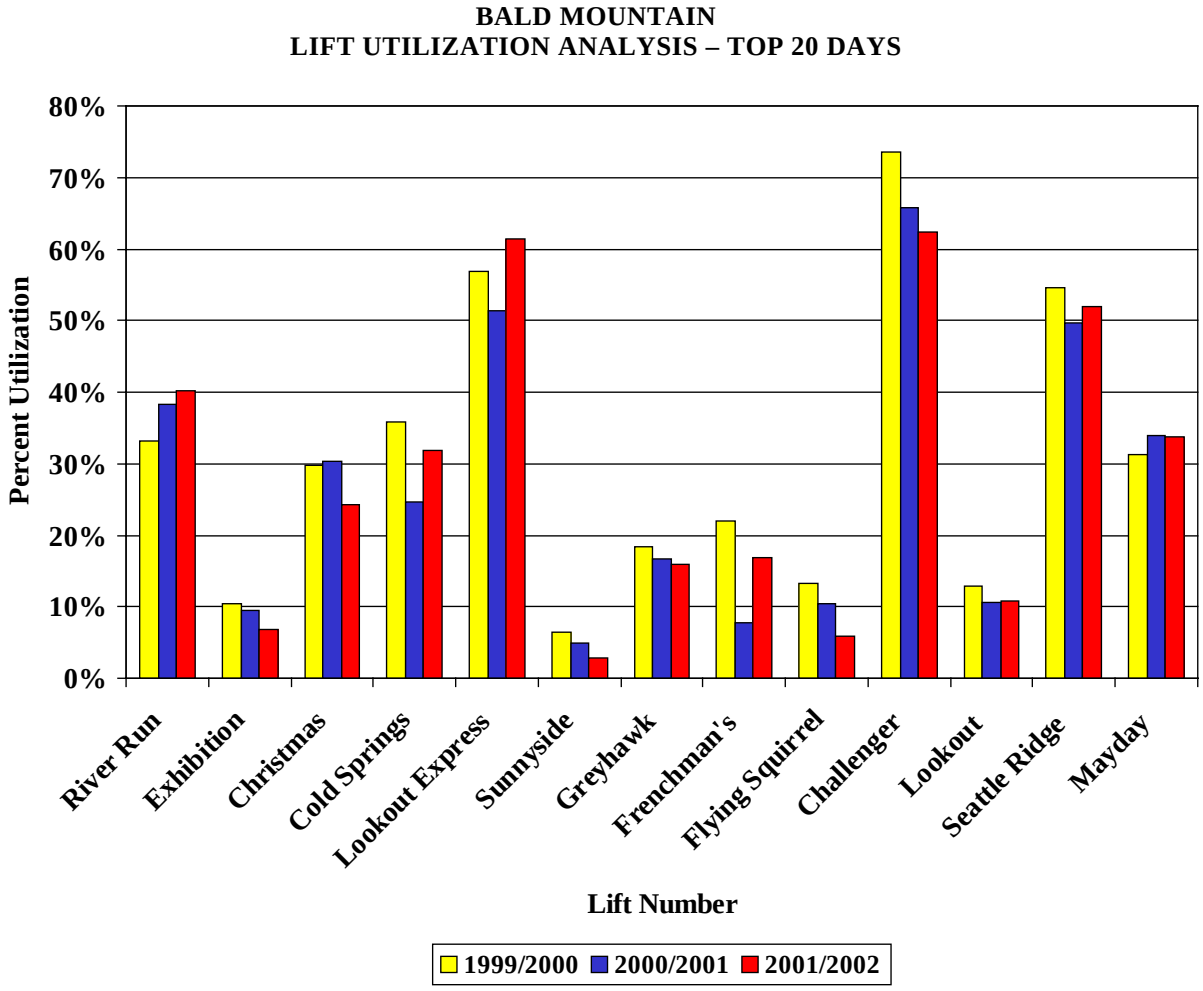

PLATE II.11

The Challenger lift has the highest utilization rates over the three years analyzed, however the Lookout Express has been catching up and is now equal to the Challenger. This is partly due to the shift in skiers from the Warm Springs side of the mountain to the River Run side. The Seattle Ridge lift is the ride next most utilized on Bald Mountain, followed by the River Run lift. The Mayday lift has surprisingly high utilization, given the fact that it is an older fixed grip lift.

Lift ridership is an important analytical tool for determining the desirability of a lift and hence, the terrain it services. To compare the levels of ridership on each lift, we have applied the Effective Penetration Rate (EPR) concept. For example, a lift which supplies 20 percent of the ski area's total lift capacity and captures 20 percent of the skier rides will exhibit an EPR of 1.0. Those lifts that capture more than their share of skier rides will exhibit a higher EPR, while those that capture less than their share will have an EPR of less than 1.0. As illustrated in Plate II.12, the Challenger lift exhibits the highest EPR, however, as noted with the total ridership and the utilization rates, this lift has been equaled by the Lookout Express.

BALD MOUNTAIN
LIFT EFFECTIVE PENETRATION RATE ANALYSIS

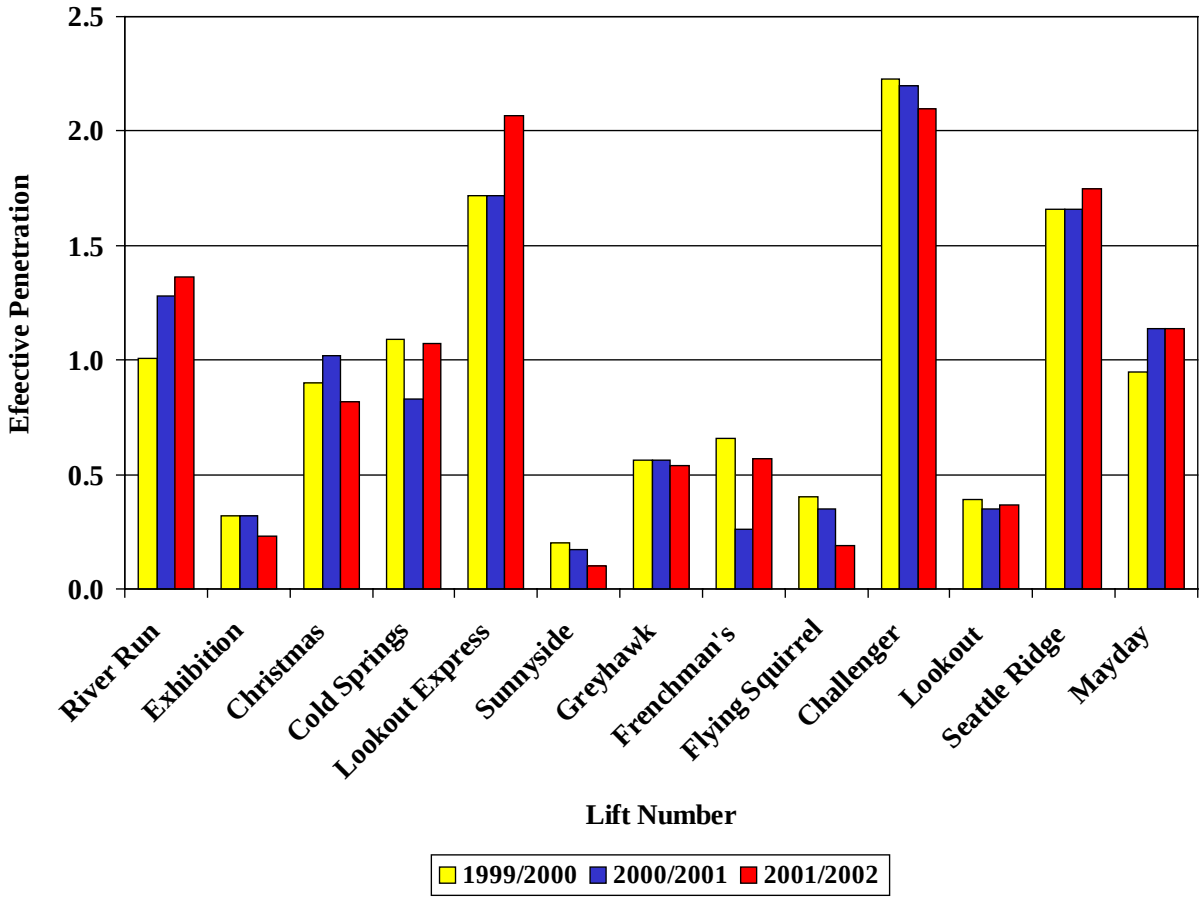

PLATE II.12

Dollar Mountain

The operations management at Sun Valley also collected lift ridership data for the lifts at Dollar Mountain. Detailed lift ride counts for the top 20 skier visitation days for last three years of operation (1999/2000, 2000/2001 and 2001/2002) at Dollar Mountain have been analyzed and the summary of this analysis is listed in Table II.20.

TABLE II.20
DOLLAR MOUNTAIN
LIFT RIDE ANALYSIS
TOP 20 DAYS - 1999/2000 TO 2001/2002

2001/2002

Lift Number	1	2	3	4	TOTAL		
Lift Name	**Half Dollar 2C**	**Dollar 2C**	**Quarter Dollar 2C**	**Elkhorn 3C**	**Rides**	**Total Skier Visits**	**Rides/ Skier**
Total	54,648	40,945	44,802	10,353	150,748	10,802	14.0
% of Total Rides	36.3%	27.2%	29.7%	6.9%	100.0%		
Hourly Capacity	1,000	1,200	1,200	1,400	4,800		
Total Hours	140	140	140	88	508		
Potential Capacity	140,000	168,000	168,000	122,850	598,850		
% Potential	23.4%	28.1%	28.1%	20.5%	100.0%	**Average**	
EPR	1.55	0.97	1.06	0.33		**VTM/**	
Utilization	39.0%	24.4%	26.7%	8.4%		**Skier/**	
Vertical	190	640	168	554		**Day**	
VTM (000)	10,383	26,205	7,527	5,736	49,850	4,615	

2000/2001

Lift Number	1	2	3	4	TOTAL		
Lift Name	**Half Dollar 2C**	**Dollar 2C**	**Quarter Dollar 2C**	**Elkhorn 3C**	**Rides**	**Total Skier Visits**	**Rides/ Skier**
Total	55,264	17,453	38,819		111,536	8,081	13.8
% of Total Rides	49.5%	15.6%	34.8%		100.0%		
Hourly Capacity	1,000	1,200	1,200	1,400	4,800		
Total Hours	140	77	140		357		
Potential Capacity	140,000	92,400	168,000		400,400		
% Potential	35.0%	23.1%	42.0%			**Average**	
EPR	1.42	0.68	0.83			**VTM/**	
Utilization	39.5%	18.9%	23.1%			**Skier/**	
Vertical	190	640	168	554		**Day**	
VTM (000)	10,500	11,170	6,522		28,192	3,489	

1999/2000

Lift Number	1	2	3	4	TOTAL		
Lift Name	**Half Dollar 2C**	**Dollar 2C**	**Quarter Dollar 2C**	**Elkhorn 3C**	**Rides**	**Total Skier Visits**	**Rides/ Skier**
Total	38,113	32,807	37,150	12,355	120,425		
% of Total Rides	31.6%	27.2%	30.8%	10.3%	100.0%		
Hourly Capacity	1,000	1,200	1,200	1,400	4,800		
Total Hours	140	126	140	122	528		
Potential Capacity	140,000	151,200	168,000	170,100	629,300		
% Potential	22.2%	24.0%	26.7%	27.0%	100.0%	**Average**	
EPR	1.42	1.13	1.16	0.38		**VTM/**	
Utilization	27.2%	21.7%	22.1%	7.3%		**Skier/**	
Vertical	190	640	168	554	-	**Day**	
VTM (000)	7,241	20,996	6,241	6,845	41,324		

Total Rides

Plate II.13 illustrates the total rides that occurred on the top 20 days at Dollar Mountain over the three seasons from 1999/2000 to 2001/2002. The Half Dollar Lift had the greatest ridership during this time.

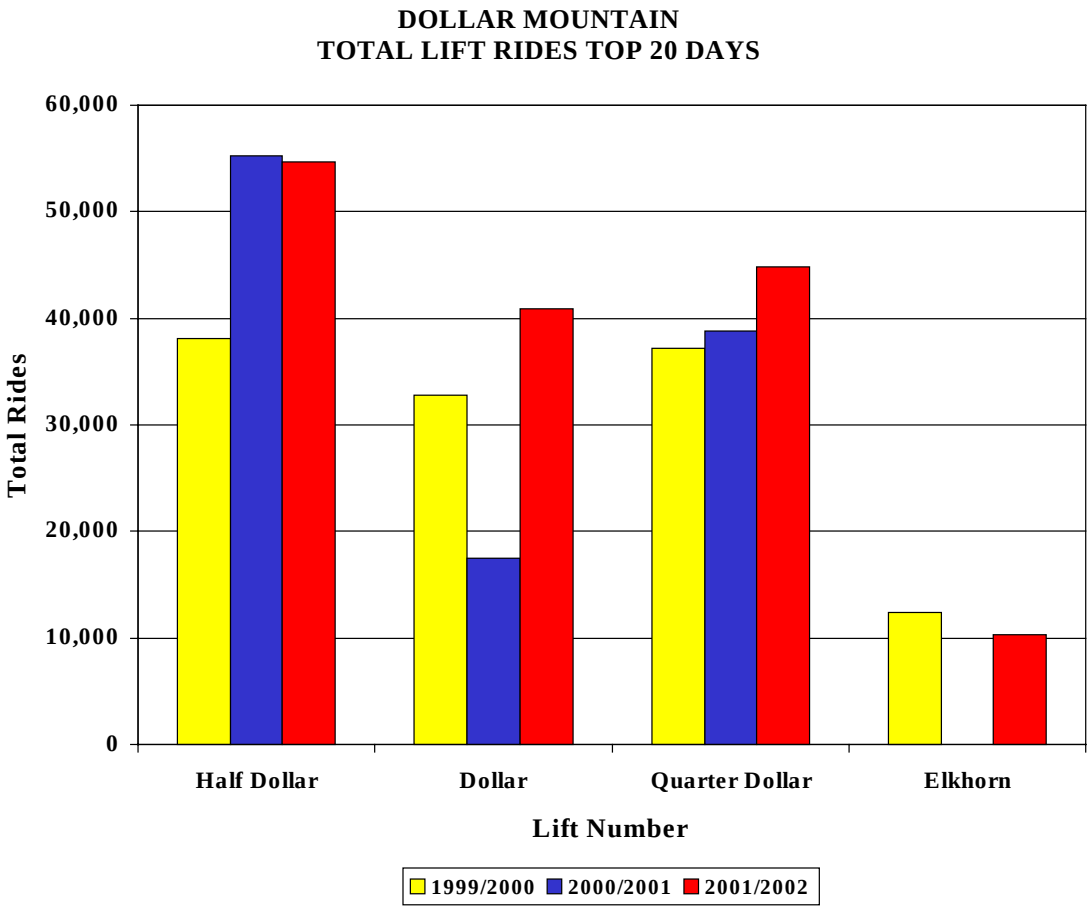

PLATE II.13

Utilization

Plate II.14 shows the utilization rate for each lift during the top 20 days on Dollar Mountain. The Half Dollar chairlift had the highest utilization during this time.

DOLLAR MOUNTAIN
LIFT UTILIZATION ANALYSIS

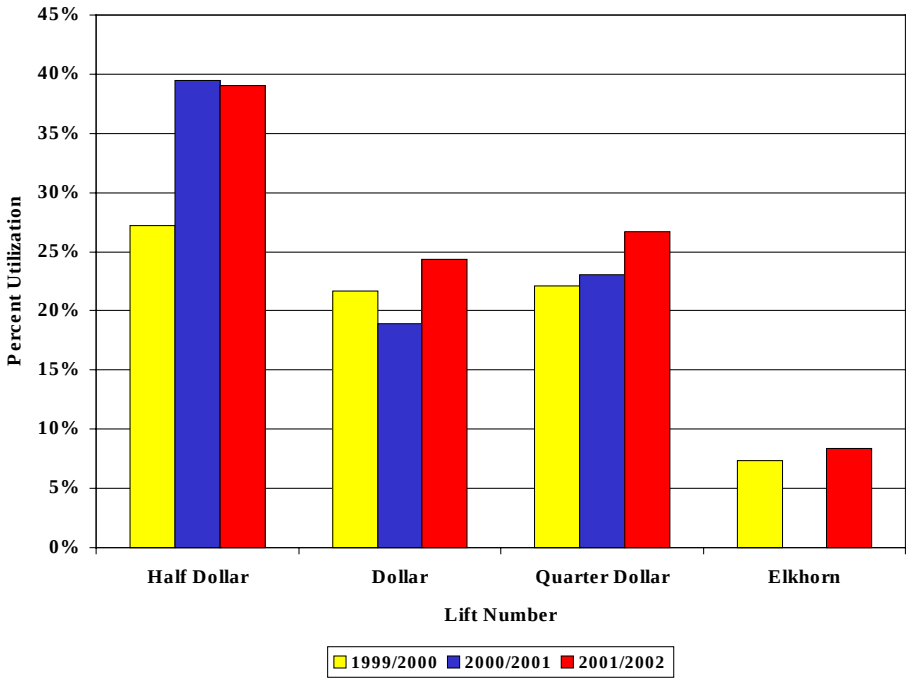

PLATE II.14

As illustrated in Plate II.15, the Half Dollar lift exhibits the highest EPR. In conclusion, the Half Dollar lift is the most popular lift on Dollar Mountain.

DOLLAR MOUNTAIN
LIFT EFFECTIVE PENETRATION RATE ANALYSIS

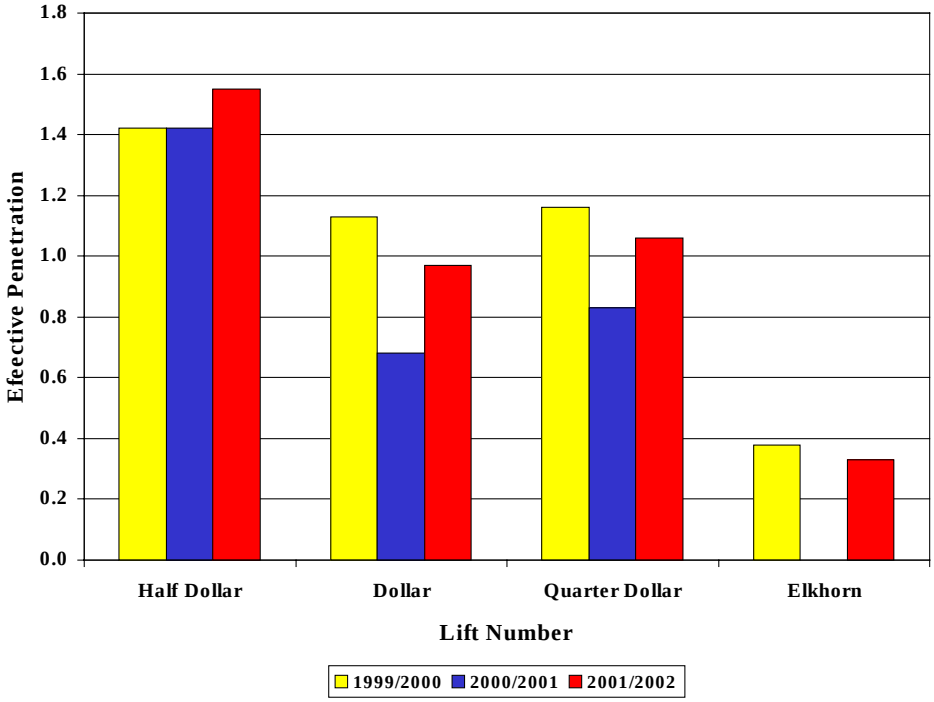

PLATE II.15

.9 Snowboarding

Snowboarders generally utilize the same groomed and ungroomed trails as skiers. Snowboarders are generally freestylers using both "carving" terrain (groomed slopes) and ungroomed and undulating terrain, and therefore mix easily with skiers. There is a portion of the snowboard population who like to use a snowboard park, boarder-cross or halfpipe for all of, or a significant part of the day. Shaped skis are also making these terrain features popular for skiers. Sun Valley has installed a half pipe on the Lower Warm Springs trail under the Challenger lift during the summer of 2003.

.10 Snowmaking

Dollar Mountain

Dollar Mountain does not have a permanent snowmaking system but does make snow if necessary. Snowmaking is accomplished by using portable equipment borrowed from Bald Mountain and piping and other equipment rented from farmers in the area.

Bald Mountain

Portions of Bald Mountain have been serviced by snowmaking since the 1970's. Snowmaking has succeeded in extending the ski season from 110 to 120 days, to a season of 140 to 150 days in the 1980's. By the 1991/92 ski season, Sun Valley had the "world's largest automated snowmaking system", covering over half of the total skiable area. Previous to the installation of automated snowmaking, Bald Mountain had snowmaking covering one quarter of the terrain on selected runs. In the summer of 1990, automated snowmaking equipment was installed on Bald Mountain to cover 75 acres of ski trails. This new system proved so successful in the snow poor 1990/91 ski season, that Sun Valley decided to extend the automated snowmaking to cover its present extent (over 370 acres) for the 1991/92 ski season. This system is computer controlled from two separate control centers, one on mid Warm Springs and one near the Roundhouse. The Bald Mountain automated snowmaking system and trail coverage is shown in Figure 9. Table II.21 lists the trails covered by snowmaking and the acreage covered on each trail. The 28 snowmade trails have a total coverage of 371 acres and a total capacity of approximately 5,060 skiers. This snowmaking coverage will allow most of the lifts (except Lifts 4, 8, 11 and 12) to operate when the natural snow coverage is not adequate for skiing

TABLE II.21
BALD MOUNTAIN
SNOWMAKING TRAILS

Trail Name	Trail No.	Skill Class	Elevation Top Feet	Elevation Bottom Feet	Total Vert. Feet	Horz. Dist. Feet	Slope Dist. Feet	Percent Slope Avg.	Ave. Width Feet	Horz. Area Acres	Slope Area Acres	Skiers At Area Density	Skiers At Area Total
Snowmaking Trails													
Lower River Run	1A	2	6,350	5,758	592	3,070	3,127	19%	205	14.43	14.70	20	290
	2A/2E	5	7,675	7,290	385	1,950	1,988	20%	144	6.45	6.57	12	80
Canyon	2F	5	7,680	6,720	960	2,220	2,419	43%	205	10.46	11.40	12	140
Upper Lower Broadway	3F	3	7,380	7,230	150	510	532	29%	141	1.65	1.72	16	30
Christmas Ridge/L.Bowl	3H	6	9,020	7,520	1,500	3,290	3,616	46%	190	14.37	15.79	6	90
Blue Grouse	5J	4	8,400	7,850	550	1,500	1,598	37%	249	8.56	9.12	16	150
Cut-Off	5K	4	8,860	7,670	1,190	4,520	4,674	26%	160	16.64	17.21	16	280
Upper College	5A	3	9,020	7,980	1,040	3,560	3,709	29%	180	14.75	15.37	16	250
Lower College	5B	3	7,980	6,360	1,620	7,210	7,390	22%	137	22.68	23.25	16	370
Mid River Run	5D	4	8,080	6,660	1,420	4,500	4,719	32%	162	16.71	17.52	16	280
Lower Warm Springs	7A	4	7,365	5,885	1,480	4,720	4,947	31%	314	34.01	35.64	16	570
Greyhawk	7D	6	7,365	5,890	1,475	4,110	4,367	36%	194	18.29	19.43	6	120
Hemingway	7E	5	7,025	6,040	985	3,070	3,224	32%	194	13.68	14.37	12	170
Cozy	7F	5	6,970	6,095	875	2,460	2,611	36%	172	9.73	10.33	12	120
Graduate/Under Graduate	8E	6	7,920	6,930	990	4,130	4,247	24%	87	8.23	8.46	6	50
Upper Flying Squirrel	9B	4	8,170	7,200	970	3,415	3,550	28%	182	14.24	14.80	16	240
Lower Flying Squirrel	9C	4	7,680	7,200	480	1,685	1,752	28%	157	6.08	6.32	16	100
Lower Picabo's Street	9E	4	7,210	6,820	390	980	1,055	40%	189	4.26	4.58	16	70
Limelight	10A	6	9,020	7,280	1,740	4,380	4,713	40%	210	21.11	22.71	6	140
Warm Springs Face	10B	5	9,020	7,260	1,760	4,680	5,000	38%	234	25.17	26.89	12	320
	10G	6	7,520	7,370	150	600	618	25%	115	1.59	1.64	6	10
Gretchin's Gold	12B	4	8,680	7,730	950	2,800	2,957	34%	194	12.44	13.14	16	210
Muffy's Medals	12D	3	8,680	7,420	1,260	3,730	3,937	34%	226	19.36	20.43	16	330
Christin's Silver	12F	4	8,680	7,820	860	2,580	2,720	33%	209	12.36	13.03	16	210
Seattle Ridge/Broadway	12G	3	8,680	7,385	1,295	6,060	6,197	21%	158	22.00	22.50	16	360
	13A	1	5,760	5,750	10	150	150	7%	120	0.41	0.41	40	20
Upper Gun Tower Lane		3	7,800	7,660	140	1,870	1,875	7%	35	1.52	1.52	16	20
Gun Tower Lane		3	7,670	7,390	280	4,420	4,429	6%	25	2.54	2.54	16	40
Total Snowmade	28						17.4 miles				371.4		5,060

The Cumulative Ski Trail Balance Statement for the snowmaking trails, as listed in Table II.22 and graphically illustrated in Plate II.16, shows that the snowmade ski trails at Bald Mountain are unbalanced, with the high intermediate and advanced achieving the closest balance to the skier market. There is a significant shortage of beginner, novice and expert terrain and an excess of low intermediate and intermediate terrain.

TABLE II.22
BALD MOUNTAIN SNOWMAKING TRAILS
CUMULATIVE SKI TRAIL BALANCE STATEMENT

Skill Classification	Acres	Skiers	Balance	Ideal
1 Beginner	0.4	20	0.4%	5%
2 Novice	14.7	290	5.7%	10%
3 Low Intermediate	87.3	1,400	27.7%	20%
4 Intermediate	131.4	2,110	41.7%	30%
5 High Intermediate	69.6	830	16.4%	20%
6 Advanced	68.0	410	8.1%	10%
7 Expert	0.0	0	0.0%	5%
TOTALS	**371.4**	**5,060**	**100%**	**100%**

Optimum Density =	14.8	Skiers/Acre
Weighted Demand =	12,442	VTF/Skier/Day

BALD MOUNTAIN SNOWMAKING TRAILS
CUMULATIVE SKI TRAIL BALANCE

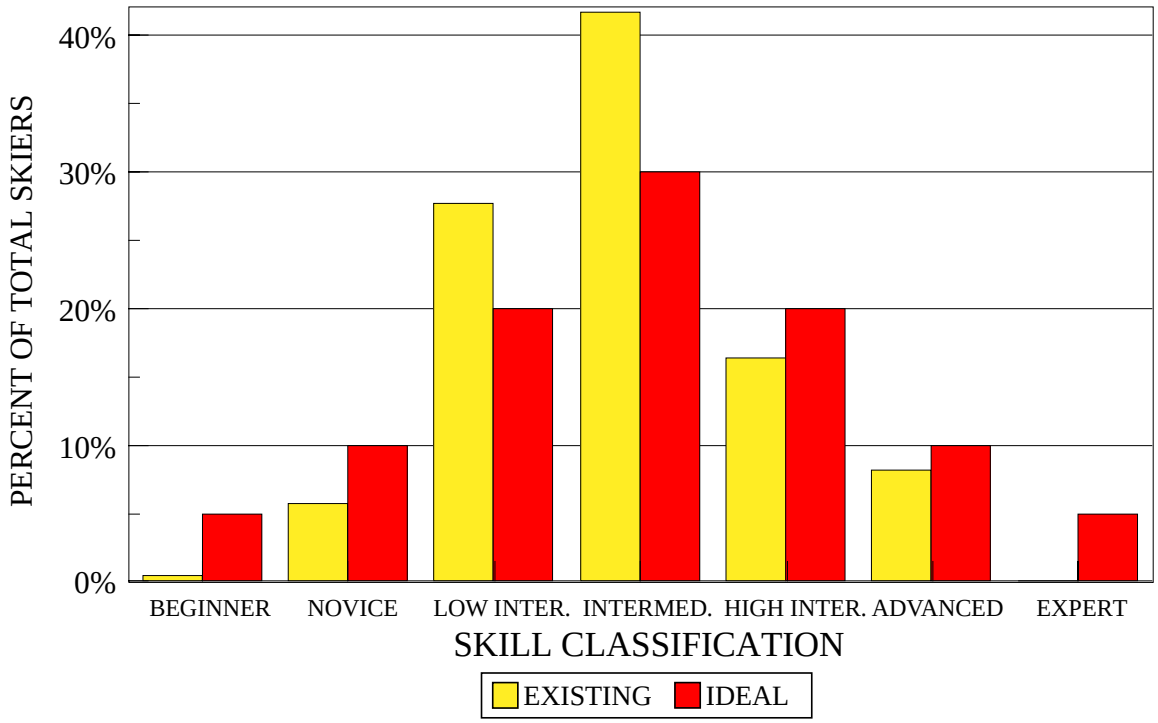

PLATE II.16

York Automatic Snow Guns on Trail's Edge

.11 Snow Grooming Equipment

Machine grooming (snowfarming) of ski trails is an essential component of mountain operations, with new grooming techniques revolutionizing many aspects of today's ski business. Present industry guidelines recommend the regular grooming of all trails with beginner to high intermediate skill classifications, with the grooming of steeper trails on a less frequent basis using winch equipped snowcats. Swing, or night shift grooming has become the rule in the industry, as it allows a longer period for groomed trails to cure (set up), while eliminating hazardous conflicts between skiers and machines. An effective summer grooming program (seeding and mulching) can save appreciable wear and tear on expensive snow grooming equipment, as well as produce earlier opening dates and lower snowmaking costs. Modern snow grooming machines come with many features and a selection of implements are available for optimizing the quality of grooming, and the time required to groom the slopes. Quick change hydraulic couplings and attachment fasteners have reduced the time and manpower required to change implements, allowing the groomer to use the right implement for the job even in changing snow conditions during a single shift. Grooming requirements change over time due to climatic conditions and the extent of skier traffic on the trail, therefore, a good selection of grooming implements such as all-way blades, power tillers and compactor bars are necessary to increase the efficiency of the grooming fleet and to provide skiers with an ideal skiing surface every day.

Sun Valley presently operates a total of 13 over-snow vehicles, with 10 on Bald Mountain and 3 on Dollar Mountain. Two additional machines are used for the grooming of cross-country trails.

The Bald Mountain snow grooming fleet is listed in Table II.23. These 10 machines have an average of 9,300 operating hours and all are 7 years old, except machine #772 which is 20 years old. Total hours of operation on the 1996 Bombardier Plus MP range from 5,020 to 9,694. The three machines utilized to groom the ski trails on Dollar Mountain are listed in Table II.24. The three Dollar Mountain machines are very old and have an average of 20,888 operating hours. The newest machine is a 1996 Bombardier MP Plus 275 with over 9,730 hours of operation. Table II.25 lists the two machines used to groom the cross-country trail system.

It is recommended that as snow grooming machines approach the 6,000-hour mark, they be traded in so that the average age of the fleet is below the 3,000-hour level. As of 2003, it appears that the entire Sun Valley grooming fleet is becoming very old and as such, availability is reduced and maintenance costs are increased. It is our recommendation that the grooming fleet be replaced to increase availability and reduce maintenance costs.

TABLE II.23
GROOMING EQUIPMENT INVENTORY
BALD MOUNTAIN

Machine Number	Make	Model	Year	Hours	Machine Equivalents	Implements
MP 69	Bombardier	Plus MP	1996	9,648	1.25	Tiller
MP 70	Bombardier	Plus MP	1996	8,621	1.25	Tiller
MP 71	Bombardier	Plus MP	1996	9,454	1.25	Tiller
MP 73	Bombardier	Plus MP	1996	8,330	1.25	Tiller
MP 74	Bombardier	Plus MP	1996	9,694	1.25	Tiller
MP 75	Bombardier	Plus MP	1996	8,821	1.25	Tiller
MP 76	Bombardier	Plus MP	1996	9,187	1.25	Tiller
MP 77	Bombardier	Plus MP	1996	5,366	0.25	Winch/Tiller
MP 78	Bombardier	Plus MP	1996	5,020	0.25	Winch/Tiller
772	Thiokol	3700AC	1983	18,859	0.25	Winch
Average				**9,300**		
Total					**9.50**	

TABLE II.24
GROOMING EQUIPMENT INVENTORY
DOLLAR MOUNTAIN

Machine Number	Make	Model	Year	Hours	Machine Equivalents	Implements
424	Tucker	1642	1979	30,063	1	Roller
425	Tucker	1642	1979	22,864	0.75	Roller
MP 72	Bombardier	MP Plus 275	1996	9,738	1.25	Tiller
Average				**20,888**		
Total					**2.75**	

TABLE II.25
GROOMING EQUIPMENT INVENTORY
CROSS-COUNTRY

Machine+I Number	Make	Model	Year	Hours	Implements
MP 30	Bombardier	Plus MP	1997	7,300	Tiller
PB 246	Piston Bully	PB 240D	1987	8,140	Tiller
Average				**7,720**	

It is recommended that one fully operable grooming machine be available each nightly shift for every 50 acres of groomable terrain in classes 1-5 and 25 acres per shift for class 6 terrain. Based upon these criteria, grooming trails in skill classes 1 to 5 and one shift per night, Bald Mountain's current grooming requirements can be calculated as follows:

Groomable Terrain (acres)		/	Acreage per Machine	/	Availability	=	No. of Machines Required
Class 1-5	358.4	/	50	/	80%	=	9.0
Class 6	278.0	/	25	/	80%	=	13.9

Based upon this analysis, Bald Mountain's existing 10 front line grooming machines are not adequate to groom all of the terrain in skill classes 1 to 6 every day (based on one shift per night). With double shifting, the grooming fleet will be almost adequate to groom the groomable terrain each night. However, due to the extent of terrain and business levels, it is not necessary to groom all the terrain every single night, therefore the fleet size would be adequate for the grooming needs at Bald Mountain based on about 1½ shifts per night.

Dollar Mountain is flatter and has very limited snowmaking, allowing groomers to move much faster than at Bald Mountain. Assuming grooming machines at Dollar can groom 50 acres per shift, its grooming requirements can be calculated as follows:

Groomable Terrain Skill Classes 1-5	/	50 Acres per Machine Eq.	/	Availability	=	No. of Machines Required
68.9	/	50	/	80%	=	1.7

The terrain at Dollar Mountain is calculated to require 2 machines to groom all the terrain in one shift, which means that the 3 machines (with 3.0 machine equivalent) are more than adequate.

The total number of "skiers at one time" serviced by the front line grooming fleet (not including the pipe grooming machine) can be calculated as follows, assuming ideal densities, 80% availability, single shifting and a blended average of groomable acreage per machine:

Bald Mountain

No. of Machines	x Percent Availability	x 40 Acres Machine	x Skiers / Acre	+ Ungroomed Terrain Not Serviced	= Skiers Serviced
10	x 80%	x 40	X 11.0	+ 2,010	= 5,530

Dollar Mountain

No. of Machines Eq.	x Percent Availability	x 50 Acres Machine	x Skiers / Acre	+ Class 6 & 7 Not Serviced	= Skiers Serviced
3.0	x 80%	x 50	x 17.9	+ 0	= 2,148

Sun Valley has a major maintenance shop at the River Run Base. This shop has a total of 6 service bays and 1 wash/lube bay. The maintenance shop has a total floor area of 4,464 square feet, excluding the wash/lube bay.

Sun Valley Maintenance Shop Bay

.12 Existing Base Area Facilities

Sun Valley staff performed a detailed inventory of the skier service buildings on Bald and Dollar Mountains. The existing skier service space is listed in Table II.26. Sun Valley currently has four major buildings in the River Run base area including a daylodge, rental and kids' building and two operations buildings. At Warm Springs, one daylodge provides skier service facilities. On-mountain, major skier restaurants are in three locations; Seattle Ridge, the Roundhouse and the Lookout. Dollar Mountain has one daylodge at the base of the hill which provides all skier services in that area.

Existing Guest Services

In 1977, the United States Forest Service performed a detailed inventory of skier service facilities at Western U.S. resorts. This inventory was tabulated and broken down into 15 service functions. Ecosign has since updated this database using the U.S.F.S. format to provide current skier service standards for both North American and European day ski areas, regional resorts and destination resorts.

Table II.26 illustrates the square feet of floorspace in each category of service in the Sun Valley guest services buildings. The total floor area of all of Bald Mountain's guest service buildings is 102,467 square feet. Of that, 12,430 square feet is used for skier staging functions, 55,771 for commercial functions and 8,761 for administration, employee facilities and ski patrol. Dollar Mountain's daylodge has 24,594 square feet of skier services floorspace.

River Run Lodge

Seattle Ridge Lodge

ecosign
Mountain Resort Planners Ltd.

TABLE II.26
SUN VALLEY – COMBINED
SKIER SERVICES FLOORSPACE INVENTORY

	Sun Valley											
SPACE USE INVENTORY	**BALD MOUNTAIN**										**DOLLAR**	**TOTAL**
	River Run Base				**Warm Springs**	**On-Mountain**				**Total**	**MTN.**	
GUEST SERVICE FUNCTION	Daylodge	Retail/Kids	Maint/Ops	***Subtotal***	Daylodge	Seattle Ridge	Roundhouse	Lookout	***Subtotal***		**Daylodge**	
Staging Facilities (Square Feet)												
Ticket Sales	915			*915*	*240*				-	**1,155**	48	**1,203**
Public Lockers & Change Rooms	1,779	3,400		*5,179*	*1,167*				-	**6,346**	1,001	**7,347**
Equipment Rental & Repair	-	2,569		*2,569*	*912*				-	**3,481**	1,706	**5,187**
Ski School / Guest Relations	-			-	*160*			747	*747*	**907**	353	**1,260**
Daycare											856	**856**
Children's Ski Programs	-	541		*541*	-				-	**541**	2,078	**2,619**
Staging Subtotal	**2,694**	**6,510**	**-**	***9,204***	***2,479***	**-**	**-**	**747**	***747***	**12,430**	**6,042**	**18,472**
Commercial Facilities (Square Feet)												
Food & Beverage Seating	8,352			*8,352*	*5,424*	4,452	5,437	6,402	*16,291*	**30,067**	3,565	**33,632**
Kitchen & Scramble	5,264			*5,264*	*2,475*	2,014	915	3,654	*6,583*	**14,322**	2,612	**16,934**
Restrooms	2,055	1,194		*3,249*	*816*	1,609	704	140	*2,453*	**6,518**	1,950	**8,468**
Accessory/Retail Sales	-	4,216		*4,216*	*648*	-	-		-	**4,864**	-	**4,864**
Commercial Subtotal	**15,671**	**5,410**	**-**	***21,081***	***9,363***	**8,075**	**7,056**	**10,196**	***25,327***	**55,771**	**8,127**	**63,898**
Operational Facilities (Square Feet)												
Administration	250	210	957	*1,417*	-	90			*90*	**1,507**	408	**1,915**
Employee Facilities	584	310	2,123	*3,017*	*976*			147	*147*	**4,140**	897	**5,037**
First Aid & Ski Patrol	-			-	-	665	2,449		*3,114*	**3,114**	-	**3,114**
Operations Subtotal	**834**	**520**	**3,080**	***4,434***	***976***	**755**	**2,449**	**147**	***3,351***	**8,761**	**1,305**	**10,066**
Building Subtotal	**19,199**	**12,440**	**3,080**	***34,719***	***12,818***	**8,830**	**9,505**	**11,090**	***29,425***	**76,962**	**15,474**	**92,436**
Storage/Mechanical	1,013	3,903	914	*5,830*	*2,242*	1,311	700	1,109	*3,120*	**11,192**	3,403	**14,595**
Circulation/Walls/Waste	988	3,657	462	*5,107*	*3,205*	3,278	1,060	1,664	*6,002*	**14,313**	5,717	**20,030**
Subtotal	**2,001**	**7,560**	**1,376**	***10,937***	***5,447***	**4,589**	**1,760**	**2,773**	***9,122***	**25,505**	**9,120**	**34,625**
Guest Service Total	**21,200**	**20,000**	**4,456**	***45,656***	***18,265***	**13,419**	**11,265**	**13,863**	***38,547***	**102,467**	**24,594**	**127,061**

Note: Children's ski school space at Dollar Mountain is assigned both to Food Service Seating and Children's Ski Programs

Guest Services Glossary

Guest services are specifically related to the operation and management of the mountain resort area. For planning purposes, these services can be broken down into three distinct categories:

Staging Facilities - those services that are required as guests arrive at the area.

Commercial Services - those services required throughout the day as guests are on the mountain and during après-ski hours.

Operational Facilities - those services not directly required by guests but which are essential for the day-to-day operation of the mountain.

Staging facilities include ticket sales, public lockers, equipment rental and repair, ski and snowboard school, children's programs and retail sales, and are located in the base areas. These services should be sized in relation to the number of guests staging through each base area portal.

Commercial facilities are located both in the base area and on the mountain, and include food and beverage seating, kitchen and serving areas, restrooms and accessory retail space. Restaurant seats should be planned relative to the number of skiers circulating in the vicinity of the proposed restaurant sites. Kitchens and restrooms must be sized in proportion to the amount of seating proposed for each restaurant.

Operational facilities are generally "back of the house" services and include administration, employee lockers and mountain patrol facilities. These facilities will be located both on the mountain and in the base area.

Analysis of Existing Guest Services

The "Design Day" is the business level that the guest service buildings are designed for, rather than a peak day or the Mountain SCC. Generally, the Design Day is set lower than the peak day to avoid building guest services for unrealistic business levels. Depending on the variation in the business levels at the resort, possible approaches to determine the Design Day are to calculate the average number of guests on the ten busiest days of the winter season, or to set the business levels at 80 percent of the winter season's peak day. Ecosign analyzed the skier service levels versus an 80 percent design day, as well as a level for Bald Mountain, which represents the average of the ten busiest ski days for the seasons ending 2001, 2002 and 2003 (5,200 skiers per day). Based upon the Design Day levels and the Ecosign standard level of service for destination resorts, we have calculated the amount of

required floorspace. It should be noted that on peak days, Dollar Mountain experiences approximately 80 percent of the total children's program business, therefore, children's programs have been analyzed on this basis in the space use analysis.

Warm Springs Lodge

Table II.27, the Space Use Analysis, points out deficiencies and surpluses in the floor area of guest service space at Bald Mountain when compared with Ecosign's planning standards of the level of service at a destination resort.

When compared to the Resort Area recommendations, most functions at Bald Mountain more than adequately service the 5,200 skiers on a peak day. However, there are shortages in equipment rental and repair, ski school and bar/lounge floorspace. There are many competing food service and ski rental/retail business in Warm Springs, Ketchum and Sun Valley.

Administration floorspace also seems to be in short supply, however more floorspace is located in other places on and off the mountain, such as the Sun Valley Village. Food service facilities are one of the most critical revenue producing skier service space categories identified in this analysis. Based on floorspace only, the 27,000 square feet dedicated to food services at Bald Mountain seems to be 30 percent too large. However, the density of restaurant seats is lower than at most ski resorts, and the following section (Restaurant Seating Inventory) shows that the number of seats would be slightly low to serve 5,200 skiers per day on indoor seats only.

When a design day of 80 percent of the existing Skier Carrying Capacity is utilized, all ticket sales, food and beverage seating, employee facilities and first aid/ski patrol are adequate. At this level of business, there would however, be shortages in the other skier service facilities such as equipment rental, retail and ski school. The rental and retail services can be supplied within the proposed River Run Village or others in the Warm Springs area. Many of the ski school services are available at the Sun Valley Village or Dollar Mountain facility.

TABLE II.27
SUN VALLEY – BALD MOUNTAIN
SPACE USE ANALYSIS

			Design Day Current Peak Levels			Design Day Existing SCC		
Existing Skier Carrying Capacity =	**9,200**		**5,200 Skiers/day**			**7,360 Skiers/day**		
	Bald Mtn.- Existing		**Ecosign Standard**	**Comparison with Ecosign Standard**		**Ecosign Standard**	**Comparison with Ecosign Standard**	
Guest Service Function	Existing	Existing		+/- Eco.	% of Eco.		+/- Eco.	% of Eco.
Staging Facilities	(ft^2/skier)	(ft^2)	(ft^2)	(ft^2)		(ft^2)	(ft^2)	
Ticket Sales	0.22	1,155	780	375	148%	1,104	51	105%
Public Lockers & Change Rooms	1.22	6,346	6,240	106	102%	8,832	(2,486)	72%
Equipment Rental & Repair	0.67	3,481	5,200	(1,719)	67%	7,360	(3,879)	47%
Ski School / Guest Relations	0.17	907	2,600	(1,693)	35%	3,680	(2,773)	25%
Children's Programs (see note)	0.10	541	638	(97)	85%	854	(3,139)	15%
Staging Subtotal	**2.39**	**12,430**	**15,458**	**(3,028)**	**80%**	**21,830**	**(12,226)**	**50%**
Commercial Facilities (Square Feet)								
Food & Beverage Seating	5.78	30,067	20,800	9,267	145%	29,440	627	102%
Kitchen & Scramble	2.75	14,322	10,400	3,922	138%	14,720	(398)	97%
Restrooms	1.25	6,518	5,200	1,318	125%	7,360	(842)	89%
Accessory/Retail Sales	0.94	4,864	3,900	964	125%	5,520	(656)	88%
Commercial Subtotal	**10.73**	**55,771**	**40,300**	**15,471**	**138%**	**57,040**	**(1,269)**	**98%**
Operational Facilities (Square Feet)								
Administration	0.29	1,507	5,200	(3,693)	29%	7,360	(5,853)	20%
Employee Facilities	0.80	4,140	2,600	1,540	159%	3,680	460	113%
First Aid & Ski Patrol	0.60	3,114	1,820	1,294	171%	2,576	538	121%
Operations Subtotal	**1.68**	**8,761**	**9,620**	**(859)**	**91%**	**13,616**	**(4,855)**	**0%**
Building Subtotal		**76,962**	**65,378**	**11,584**	**118%**	**92,486**	**(18,350)**	**81%**
Storage/Mechanical	2.15	11,192						
Circulation/Walls/Waste	2.75	14,313						
Subtotal	**4.90**	**25,505**						
Guest Service Total	**19.71**	**102,467**						

Note: Children's programs occur primarily at Dollar Mtn, business levels show approx. 20% of chlidren at Bald Mtn.

Note: 2 Design Days used for skier service functions, 5,200 is the average of the 10 busiest skier days and 7,360 is 80% of SCC

The space use analysis for the new Dollar Mountain Lodge shown in Table II.28, illustrates an adequate level of facilities for the Design Day. We have utilized a design day which is 80 percent of the SCC for Dollar Mountain (1,184 skiers), which is close to the peak day during Christmas of 2004. Based on this design day, there are several areas that are short of space, including the ticket sales and retail. Notable surpluses are found in the equipment rental (when equipment rental storage is included), restrooms and employee facilities. There is no first aid/ski patrol space at the Dollar Mountain base. Accident victims are transported directly to the local medical facility via ambulance.

TABLE II.28
SUN VALLEY – DOLLAR MOUNTAIN
SPACE USE ANALYSIS

Existing Skier Carrying Capacity	**1,480**				
Design Day	**1,184**		**Ecosign**	**Comparison with**	
	Dollar Mtn.- Existing		**Standard**	**Ecosign Standard**	
Guest Service Function	Existing Area	Existing Area	Resort Area	+/- Eco. Resort Area	% of Eco. Resort Area
Staging Facilities	(ft^2/skier)	(ft^2)	(ft^2/skier)	(ft^2)	
Ticket Sales	0.01	48	178	(130)	27%
Public Lockers & Change Rooms	0.85	1,001	1,421	(420)	70%
Equipment Rental & Repair	1.44	1,706	1,184	522	144%
Ski School / Guest Relations	0.30	353	592	(239)	60%
Children's Programs (see note)	1.76	2,078	**2,554**	(476)	81%
Staging Subtotal	**4.35**	**5,186**	**5,928**	**(742)**	**87%**
Commercial Facilities (Square Feet)					
Food & Beverage Seating	3.01	3,565	4,736	(1,171)	75%
Kitchen & Scramble	2.21	2,612	2,368	244	110%
Restrooms	1.65	1,950	1,184	766	165%
Accessory/Retail Sales	-	-	888	(888)	0%
Commercial Subtotal	**6.86**	**8,127**	**9,176**	**(1,049)**	**89%**
Operational Facilities (Square Feet)					
Administration	0.34	408	1,184	(776)	34%
Employee Facilities	0.76	897	592	305	152%
First Aid & Ski Patrol	-	-	414	(414)	0%
Operations Subtotal	**1.10**	**1,305**	**2,190**	**(885)**	**60%**
Building Subtotal		**14,618**	**17,294**	**(2,676)**	**85%**
Storage/Mechanical	2.87	3,403	1,652		
Circulation/Walls/Waste	4.83	5,717	2,478		
Subtotal	**7.70**	**9,120**	**4,129**		
Guest Service Total	**20.02**	**23,738**	**21,424**		

Restaurant Seating Inventory

Bald Mountain's existing indoor food service seating is located in the two base areas, as well as on the mountain. The newer restaurants at River Run, Warm Springs and on Seattle Ridge have been built to high standards of architecture and luxury, while the older restaurants are in the historic Roundhouse and Lookout buildings. Table II.29 lists the number of outdoor seats and bar seats. Where skiers routinely use bar or lounge seats as food service seats during lunchtime, the bar seats have been counted as food service seats. Ecosign makes the assumption that on busy days during the lunch period between 11:30 a.m. and 1:30 p.m., each seat can accommodate three skiers, with turnover of approximately 40 minutes each.

TABLE II.29
SUN VALLEY - COMBINED
RESTAURANT SEAT INVENTORY AND ANALYSIS

Food Service Seats					
Building	**No. of Indoor Seats**	**Skiers Served @ 3 Turns**	**No. of Outdoor Seats**	**Skiers Served @ 3 Turns**	**Skiers Served Total**
River Run Daylodge	414	1,242	236	708	1,950
Warm Springs Lodge	288	864	160	480	1,344
Base Areas Total	***702***	***2,106***	***396***	***1,188***	***3,294***
Seattle Ridge	330	990	250	750	1,740
Roundhouse	175	525		0	525
Lookout	426	1,278	96	288	1,566
Mountain Rest.Total	***931***	***2,793***	***346***	***1,038***	***3,831***
Total Food Service Seats	**1,633**	**4,899**	**742**	**2,226**	**7,125**
Bar Seats *					
River Run Daylodge	50				
Warm Springs Lodge	0				
Bald Mountain Total Seats	**1,683**	**4,899**	**742**	**2,226**	**7,125**

Dollar Mountain Lodge	150	450	100	300	750
Dollar Mountain Lodge (Children's Center)	300	600	-	-	600
Total Dollar Mountain Seats	**450**	**1,050**	**100**	**300**	**1,350**
TOTAL Bald/Dollar Mountain Seating	**2,133**	**5,949**	**842**	**2,526**	**8,475**

Children's seats are used 2 times per day.
The bar seats in River Run are not used for lunch time food service.
All seats in Warm Springs Lodge have a liquor licence and are used as food service seats during lunch.

Based on 3 turns per seat, the number of existing seats at Bald Mountain can serve between 4,900 (indoors only) and 7,125 guests (indoors and outdoors). We conclude that the number of indoor restaurant seats is almost adequate for the current business levels. However, peak days generally coincide with the sunny days. Under this scenario, Bald Mountain would have more than adequate seating for the current business levels, when outdoor seats can be used. Additionally, on the sunny days there are almost enough seats for the design day based on the existing SCC. Sun Valley management confirms that the existing food service facilities are never overcrowded. Additional food service seating at the ski resort is also available at facilities that are owned by other operators located in the Warm Springs base area. New food facilities will be available in the River Run Village.

The Dollar Mountain Lodge has more than adequate food service capacity. The Dollar Mountain Lodge can service 1,050 skiers indoors and another 300 with the outdoor seating, compared to a design day capacity of 1,184 skiers per day, based on the SCC.

Food Service Scramble Area in the River Run Lodge

Guest Services Capacity Summary

Plates II.17and II.18 illustrates the number of skiers served with each skier service function, given the existing floor area of guest services at Sun Valley.

BALD MOUNTAIN
GUEST SERVICES ANALYSIS

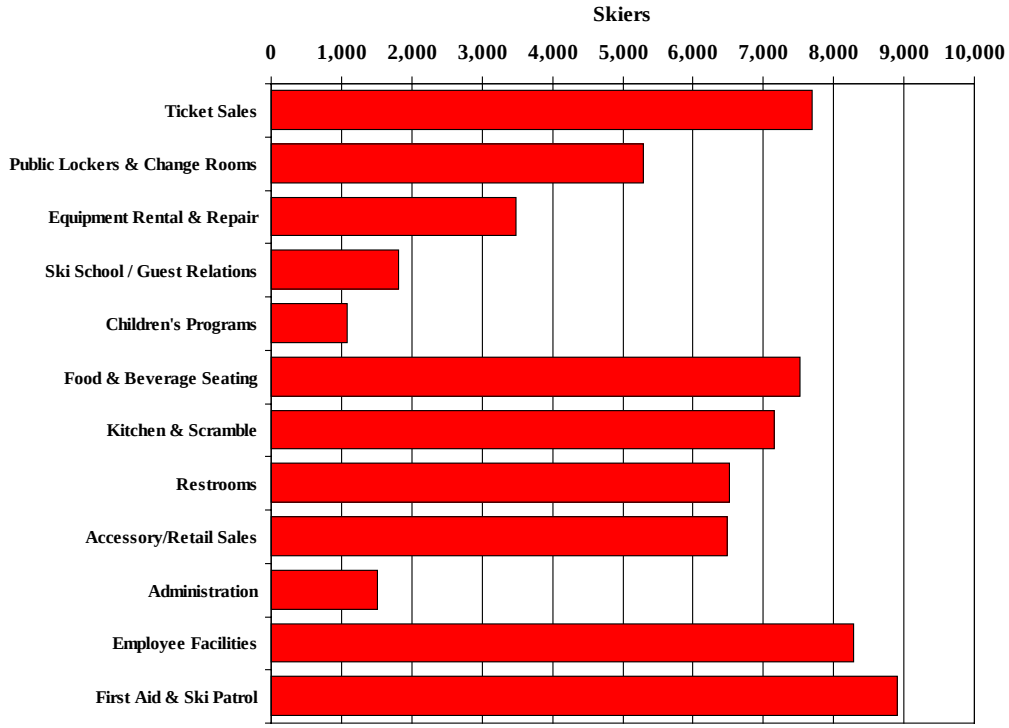

PLATE II.17

DOLLAR MOUNTAIN
GUEST SERVICES ANALYSIS

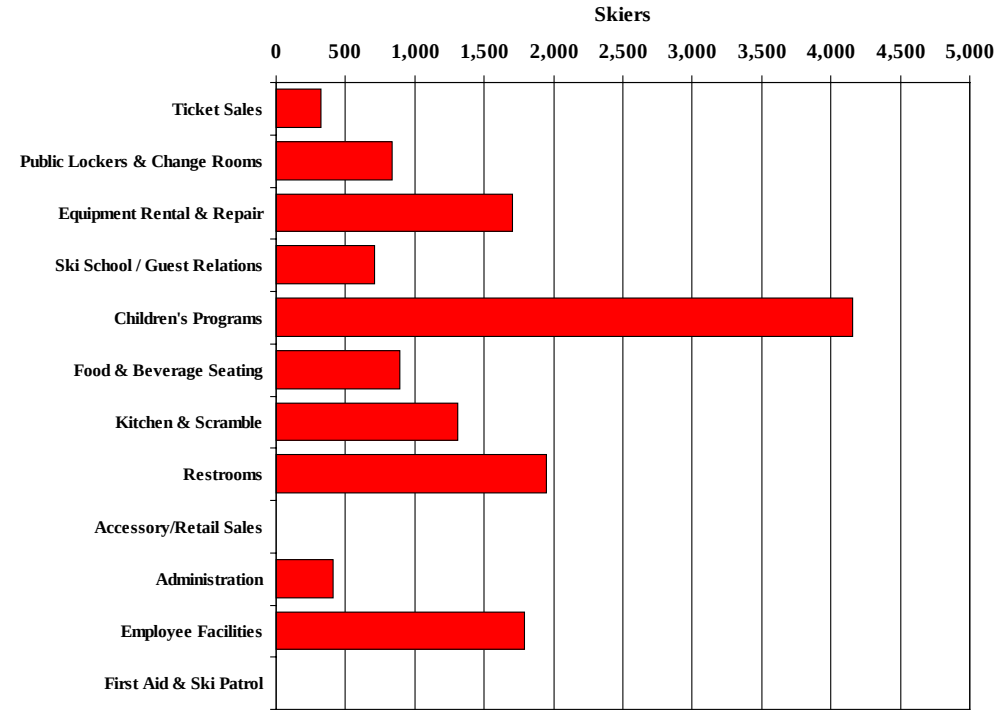

PLATE II.18

.13 Area Facilities Balance

Throughout the previous sections, we have prepared an inventory of all existing facilities for the winter operation of the resort, including Bald Mountain, Dollar Mountain and the combined Bald Mountain/Dollar Mountain total resort. We have subsequently analyzed the SAOT and daily capacity of the following operational elements: lifts, trails, grooming, skier service floorspace and food service seating. We have prepared a graphic representation of the overall balance of these facilities for the winter season in Plates II.19 and II.20. To easily compare these diverse facilities, all capacities have been calculated in terms of the number of skiers that can be accommodated in one day.

At Bald Mountain, all of the area facilities currently exceed the average skier visitation of the top 10 days over the three seasons, as illustrated in Plate II.19. Only the indoor food service seating falls below this level. However, on sunny days when the largest crowds are expected, the addition of the outdoor seating provides adequate capacity.

BALD MOUNTAIN
AREA FACILITIES BALANCE

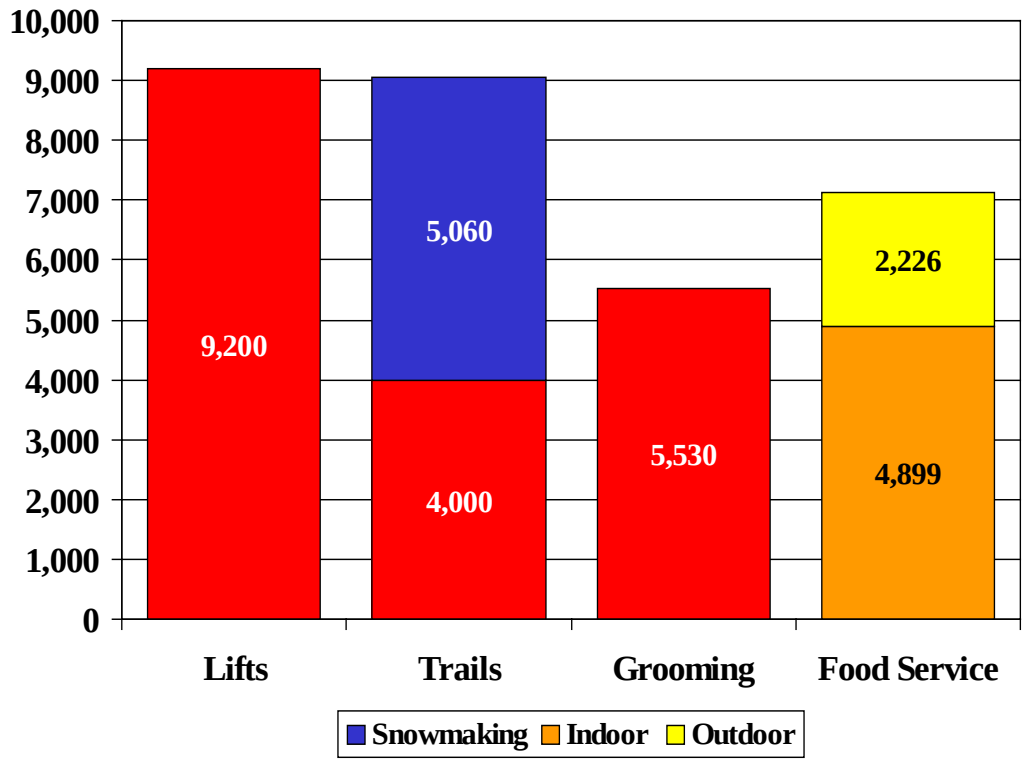

PLATE II.19

The lifts and trails are very well balanced at approximately 9,000 skiers per day. The food service seating (both indoor and outdoor) is very close to the design day level of 80 percent of the lift and trail skier carrying capacity.

The Dollar Mountain area facilities balance is illustrated below in Plate II.20. As shown, lifts, trails and food and beverage seating are all well balanced.

DOLLAR MOUNTAIN
AREA FACILITIES BALANCE

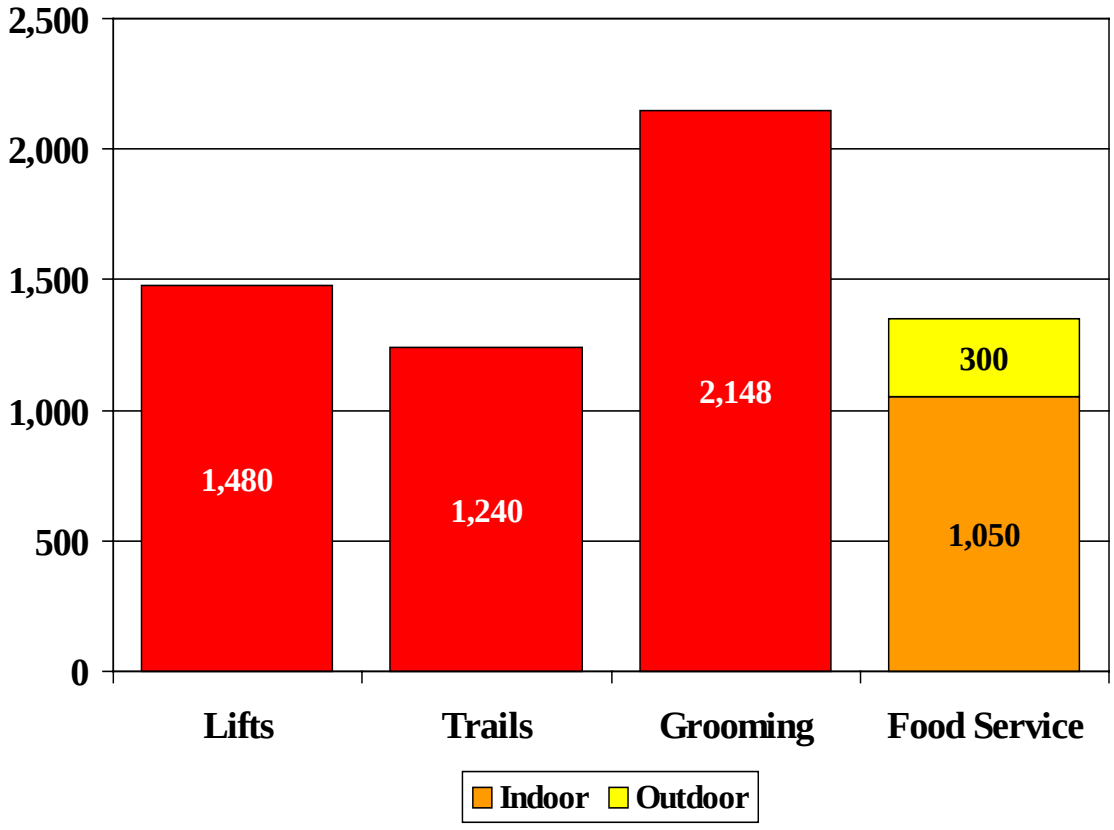

PLATE II.20